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UNITED STATES CONSULAR REPORTS.

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REPORTS

FROM THE

CONSULS OF THE UNITED STATES

ON THE

COMMERCE, MANUFACTURES, ETC.,

OF THEIR

CONSULAR DISTRICTS.

Vol. 17.

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## ON

# COMMERCE, MANUFACTURES, ETC.

No. 57--OCTOBER, 1885.

### ALGERIA.

REPORT BY CONSUL GRELLET ON VINE PRODUCTS AND EXPORTS OF IRON.

I submit a report on the export of iron from Beni-saf (province of Oran). The proportion of iron guaranteed by the mining company Molka-el-Hadid, which possesses a complete monopoly, is 55 per cent. The quarantine in force during the greater part of 1884, as a precautionary measure against cholera, interfered seriously with this trade. The exports to America have entirely ceased during the past few months, but it is anticipated that at the close of the summer trade will revive with that country.

The local trade during 1884 was represented by 116 steamers, with a total tonnage of 63,000 tons, and 52 sailing crafts of 9,000 tons.

The country about Beni-saf is extremely fertile, and as it is being rapidly brought under cultivation, at no distant period it may be anticipated that a trade with the interior of the province, Europe, and America will spring up, rendering this an important commercial port.

The population of Beni saf is now 4,500, of which 1,000 are Morocco-Arabs. Wages average from 2 to 3½ francs per diem.

There is a fine coal bulk established here, under the management of an English firm, for supplying coal to steamers visiting this port.

*Statistics of iron exported from Beni-saf (Algeria) 1882, 1883, 1884.*

Nationality.	1882.			1883.			1884.		
	No. of steamers.	Total exported.	Exported to America.	No. of steamers.	Total exported.	Exported to America.	No. of steamers.	Total exported.	Exported to America.
British.....	111	205,666	86,519	114	202,300	55,500	108	184,766	39,068
French.....	46	59,136	.....	52	61,600	.....	44	46,500	.....
Belgian.....	15	13,250	.....	15	13,584	.....	20	15,016	.....
German.....	2	2,788	.....	1	1,811	.....	2	3,688	.....
Dutch.....	.....	.....	.....	1	1,718	.....	.....	.....	.....
Austrian.....	.....	.....	.....	.....	.....	.....	1	1,182	.....
Total.....	174	280,840	86,519	183	281,013	55,500	175	251,152	39,068

## ARGENTINE REPUBLIC.

*Vine products in the province of Algiers, Algeria, for the years 1881 to 1884.*

Districts.	1881.		1882.		1883.		1884.		Number of acres of young in the former supergules.	Total superficies of plantations.
	Number of acres cultivated.	Number of gallons produced.	Number of acres cultivated.	Number of gallons produced.	Number of acres cultivated.	Number of gallons produced.	Number of acres cultivated.	Number of gallons produced.		
Algiers .....	14, 415	2, 676, 608	18, 640	5, 873, 206	22, 782	7, 956, 718	27, 418	8, 160, 618	1, 411	28, 829
Medea .....	1, 329	129, 822	1, 377	181, 026	2, 358	974, 006	2, 380	1, 196, 096	867	3, 247
Miliana .....	1, 082	107, 426	1, 172	235, 378	1, 671	298, 019	2, 001	308, 796	1, 540	8, 561
Orléansville .....	279	11, 748	297	37, 093	233	39, 468	350	43, 648	632	963
Fist-Ouzon .....	790	42, 162	90	217, 600	1, 972	439, 048	2, 266	283, 608	919	3, 185
Total .....	17, 893	2, 967, 756	20, 568	8, 554, 462	28, 908	9, 702, 250	34, 415	8, 061, 706	5, 409	29, 824

CHAS. T. GRELLET,  
Consul.

UNITED STATES CONSULATE,  
Algiers, July 14, 1885.

## ARGENTINE REPUBLIC.

## CONSUL BAKER ON METHOD OF BUILDING UP A TRADE WITH THAT NATION.

To build up a large and permanent commerce with the Argentine Republic, a matter attended with many difficulties, there are several considerations to be constantly borne in mind.

(1) If we would succeed in the realization of the best results, we must not be discouraged by stumbling blocks in the way. I know many cases where our manufacturers in certain lines of goods commenced with a grand parade of what they were going to accomplish here; but after a short "spurt" they came to the conclusion that the competition was too great, or that the field was already occupied and so gave up entirely. Our final triumph, if it come at all, must come from a steady, determined, and persistent pressure.

(2) We must in our dealings conform to the ways and customs of the market. Many of our manufacturers are offering to trade with this country, but they expect the merchants here to furnish the capital to introduce articles which, perhaps, have never yet been tried here, and which must compete with similar European articles which are already known. Our manufacturers will not trust the merchants here, and then complain that the merchants will not trust them with money in advance, for getting that which the Buenos Ayres merchants can obtain in European markets on long credits.

(3) We must either establish sample houses here or send samples to established houses. Out of the samples selections will be made for trial, and recommendations sent home, with particulars as to the making up of the goods. On these the manufacturers must work, and send out a few packages on their own account. If the manufacturers cannot afford

to wait for their money until the goods are sold, they must either send their goods through a bank, paying bank commission and interest, or pay some banking house in Europe a commission for accepting their draft, the remittance going through the same banking house. The drawback to these modes of recouping their outlay is that they have to pay for these facilities a percentage, which the European manufacturers, who can afford to wait, look upon as profit on the transaction. The great mistake of American manufacturers is that they hold out for cash or a heavy advance against shipments. I do not say that they should trust all merchants here indiscriminately, but there are many old and well established houses here that are reliable. Once in awhile some one will perhaps be "bitten," but without some trust and confidence there can be but little trade. With it the trade must ultimately come, and when it comes in this manner it will "come to stay."

(4) We must consult the styles and tastes which are in vogue here. Everything will not suit the market. What would attract attention in the United States by its make or fashion would be overlooked or rejected in the River Plate. This remark is especially made with reference to dress goods, boots and shoes, hats, caps, and wearing apparel generally. It is also applicable to some kinds of agricultural and other machinery. The American manufacturers are far more apt to find a market for their wares if they would acquaint themselves with, and then conform to, the peculiarities of the Argentine people.

(5) Shippers from the United States should pay more attention to the preparation and packing of their articles for shipment, which are in many cases especially defective and careless. It must be remembered that it is a long voyage, over very rough seas, and across the heats of the equatorial regions.

(6) We must act fairly and in good faith. Complaints are frequently made to me by parties who, having been appointed exclusive agents for certain lines of goods, have, by vigorous pushing and advertising, succeeded in securing their introduction here; and then, without any regard to good faith and their agreements, the American manufacturers have indiscriminately filled orders for any and all parties applying to them for the same lines of goods, thus not only seriously interfering with the usual course of such trade, but in the end entirely destroying all interest in the regular sale of the commodities. It would be much better, when such agencies are established, to refer all outside orders coming from this country to them to be filled.

(7) Another complaint is, that after appointing agents who have by personal effort built up a good trade for certain lines of goods, the American houses have, without notice and without reason, transferred their agency to other parties, to the detriment of the very parties who had manifested the greatest interest in the introduction of the goods and had built up a market for them.

E. L. BAKER,  
*Consul.*

UNITED STATES CONSULATE,  
*Buenos Ayres, June 8, 1885.*



## ASIA MINOR.

## REPORT OF CONSUL STEVENS ON CROP PROSPECTS.

The prospect of a large yield of the principal crops grown in Asia Minor is very good at this date. The weather has been favorable thus far, and the area of land under cultivation is larger than usual. In the valley of the Cayster (Little Meander), near Thyra, the locusts have proved very destructive, even consuming the vines, and every other green thing. But their ravages are confined to a comparatively small territory, where no efforts have been made to suppress the pest, because of the fanaticism of the inhabitants, who will not destroy the locust eggs, believing that to do so is a sacrilegious interference with the designs of Providence. One proprietor, more enlightened than his neighbors, destroyed large numbers of locusts' eggs in the spring, burning them with petroleum. Inasmuch, however, as the adjacent proprietors not only refused to follow his example, but made life a burden to him by their prognostications of evil to befall him, he was not successful in his efforts at extirpation. On the contrary, as if to sustain the croakings of his neighbors, his fields were the first to be denuded of their foliage and to be rendered worthless. Of late years the Turkish Government has made diligent efforts to suppress this plague, by offering rewards for the gathering and destruction of the locust eggs, and this plan has proved efficacious, except in a few localities like that above described.

## CROP YIELDS.

*Cereals.*—The barley crop has been already harvested in good condition, and above the average in quantity. The wheat crop is now being harvested, and promises well. Unlike barley, wheat is raised mostly for home consumption. The other cereals promise finely. The outlook for the bean crop is not so favorable.

*Tobacco.*—A larger area than usual has been planted with tobacco, and a large crop of superior quality is predicted. A few years ago farmers paid little attention to tobacco raising. By experimenting it was discovered, however, that fields long fallow yielded a superior quality, and now it is one of the most profitable crops of this district.

*Cotton.*—The cotton yield will be up to the average, perhaps, but the area of land devoted to its cultivation is not larger than formerly.

*Opium.*—The opium yield promises well. Unless injured in the harvesting it will be larger than usual, and of good quality.

*Figs.*—The fig-trees do not show as prolific bearing as they did last year, but the quality will be better, if no bad weather intervenes between this and the harvesting season.

*Grapes, &c.*—It is noticed that while the grape-vines look unusually vigorous the clusters are not so thick as last year, from which fact growers anticipate a smaller yield but a better quality. In some localities complaint is made of the appearance on the vines of the dreaded phylloxera. There will be a large clip of wool. The seed crops, sesame, canary, &c., promise fairly.

W. E. STEVENS,  
Consul.

UNITED STATES CONSULATE,  
Smyrna, June 22, 1885.

## AUSTRALIA.

### *REPORT BY CONSUL GRIFFIN ON THE SILVER MINES OF NEW SOUTH WALES.*

The recent introduction of American appliances for smelting and refining silver ores in this colony has given a new impetus to the mining interests of Australasia. Silver has been known to exist for many years in various parts of New South Wales, but until the discovery of the mines at Boorook it was not found in workable quantities. Mr. Wilkinson, the colonial geologist, has repeatedly expressed the opinion that the silver deposits would eventually prove to be great sources of wealth to the colony. These deposits are not only rich in character, but cover a vast area.

#### POSITION OF THE DEPOSITS.

The cause of their neglect hitherto is attributed principally to want of knowledge as to the proper methods of treating the various kinds of ores. Some of the chief silver-bearing lodes of the colony are situated in the Barrier Ranges of the Albert district, and are believed to extend to a considerable distance toward the interior of South Australia. Silverton, the chief mining town of the silver country, is about 590 miles from Sydney and 257 miles from Adelaide. Mr. Wilkinson, Government geologist, describes Silverton as occupying a convenient position upon the main road from Adelaide to Wilcannia, and near the western margin of broken, hilly country, called the Barrier Range. The country is almost entirely surrounded by open salt-bush plains, and extends 150 miles in a north-northeast direction, and varying in width up to 110 miles. Nearly the whole of this country consists of metalliferous formations, but it is chiefly on the southwestern portion that the silver lodes have been discovered. The deepest shaft in the Albert district is about 131 feet. The lode varies from 4 to 10 feet. About 8 miles distant two other shafts have been sunk with very favorable results. At Brade & Nickel's mine, in the same neighborhood, considerable quantities of ferruginous carbonate of lead containing horn silver have been found. An assay of one piece of this mixed ore gave 3.240 ounces of silver per ton. A little further north is the Christmas mine of Hawser & Collins, from which specimens have been obtained assaying horn silver at the rate of 11.073 ounces to the ton. Valuable lodes have also been opened at Stephens' Creek, 23 miles from Silverton. At a place called Thackaringa thirty silver-bearing lodes have been discovered within a radius of 4 miles.

#### GEOLOGY OF THE DISTRICT.

The Government geologist examined eighty one lodes in the Silverton country, and the examination led him to the following conclusions :

(1) That the geological formations which contain the argentiferous lodes of the Barrier Range Silver-field are mica-schists, clay-slates, and sandstones, traversed by numerous quartz reefs and intrusive masses and dikes of coarsely crystalline granite (pegmatite) and diorite. Nearly all the lodes occur in the mica-schists, and they have been found over a tract of country 70 miles long and 30 miles wide, which has been only partly prospected, so that many more lodes will probably be discovered. But the metalliferous formations are known to occupy a much larger area, and extend to Kooribury on the north, and on the east as far as the Eight-mile Tank, on the road to Silverton, about 35 miles from Wilcannia, as shown on the accompanying map, in

the preparation of which I am indebted to Mr. Maurice Barlow, the district surveyor, for many important particulars.

(2) That the lodes, with the exception of those of the Broken Hill and Pinnacles, which are chiefly composed of ferruginous quartzite, all consist either of brown iron ore (gossan) containing argentiferous carbonate of lead and galena in bunches, and sometimes chloride and chloro-bromide of silver, and carbonate of copper, or rarely of argentiferous carbonate of lead and galena alone; quartz is sometimes, though not always present, and in one instance baryta occurs. It is evident that the oxides, carbonates, and chlorides have resulted from the decomposition of the sulphides, and perhaps arsenides of iron, lead, silver, and copper, &c., which will be met with in their original condition below the water level. Sulphide of lead (galena), and in two instances iron pyrites, are even found above the water level. I did not notice any distinct sulphide of silver, iodide of silver, or antimonial ores in the lodes; however, I have collected certain samples of ore for analysis, but they have not yet reached Sydney. Mr. J. Cosmo Newbery, C. M. G., superintendent of the Technological Museum, Melbourne, reports having found "chloride, bromide, and iodide of silver, with brown iron ore, carbonate and sulphide of lead, oxide and sulphide of antimony, and traces of bismuth" in the ore from the Christmas mine. It is stated that 12 cwt. of this ore treated at the Victorian Pyrites Smelting Company's works yielded 2,575 ounces of silver. In one mine the water level has been reached at a depth of 133 feet, in another at 72 feet, but no lode has been mined below the water level.

(3) That the lodes, without exception, are very inconstant in thickness, both in longitudinal and vertical extent, and many of them thin out entirely within a few yards. A surface plan of the numerous lodes would resemble the shrinkage cracks upon the surface of a dried piece of cross-grained wood; in fact, as before mentioned, the lode-fissures were shrinkage cracks formed by the contraction of the rock mass after the intrusion of the igneous rocks.

A crushing plant is now being erected by Mr. Thomson at Silvertown, which will enable the miners to select specimens of ore for assaying. The ore, however, contains considerable quantities of lead, and ought to be smelted on the spot or in the immediate neighborhood, but this cannot be done conveniently on account of the scarcity of fuel and water. At present fuel has to be brought a distance of 300 miles at a cost of about £5 (\$24.33) per ton. The Government geologist recommends the establishment of a railway from Silvertown to Messindie, a distance of 76 miles, where fuel and water are plentiful. The construction of this railway, besides lessening the cost of the reduction of the ore, would open up a valuable and interesting part of the country. At present the ore is sent to Adelaide for treatment.

#### RICHNESS OF THE DEPOSITS.

Various disputes and litigations concerning the titles of land in the Silvertown country have done much to retard progress, but these disputes are in a fair way of being permanently settled. Mr. I. H. Maiden, of the Technological and Industrial Museum at Sydney, is of opinion that the Silvertown district will turn out a second Nevada. He thinks the district especially rich in horn silver. He writes me under date of 31st of May last:

I have been fortunate enough to secure for the museum a piece of horn silver weighing about 3 pounds, which will be sent to you for examination as soon as it has been assayed at the mint. It is one of the richest specimens ever found. The Government geologist tells me that he did not see anything so rich on his recent tour.

On the 3d instant the specimen was sent me with a note saying that the analysis would be forwarded as soon as obtained from the mint. The ore had been cut with an iron saw, and I was struck with the bright appearance of the metal. I noticed that the chlorine of the horn silver (chloride of silver) had united with the chloride of iron.

#### ASSAYS OF ORES.

The ores, however, of the Silvertown country vary greatly in character. Samples sent from there recently assayed at the mint from 39 ounces

to 18.912 ounces of silver per ton, and specimens of galena yielded 16 per cent. of lead, 17.739 ounces of silver per ton; 45 per cent. of lead and 15 ounces of silver per ton; 82½ per cent. of lead, 198 ounces of silver per ton; 14½ per cent. of lead, and 9.175 ounces of silver per ton.

I am indebted to Mr. Warden Gower, of Wilcannia, for the following list of assays from the principal claims at Silverton and Thackaringa:

Name.	Holder.	Lead.	Silver.	Lead.	Silver.
		<i>Per cent.</i>	<i>Oz. to ton.</i>	<i>Per cent.</i>	<i>Oz. to ton.</i>
Robert Burns.....	Kitto.....	.....	.....	55½	28
Hercules Company.....	.....	82	79	.....	.....
Pluck Up Company.....	.....	.....	.....	.....	2,908
Gipsy Girl.....	Brigham.....	61½	46	48	61
Hen and Chickens.....	Crispe.....	.....	.....	.....	.....
Gipsy Girl.....	Brigham.....	75	94	70½	191
Lubra.....	Crispe.....	.....	.....	.....	.....
	Collins and Hawson.....	.....	.....	.....	.....
	Sinclair.....	.....	.....	41	164
	Nicol and Anderson.....	.....	.....	.....	.....
	Dawes.....	45	15	49	38
Chanticleer.....	Meech.....	74½	158	82½	198
	Purcell.....	.....	.....	.....	.....
St. Thomas.....	Thomas.....	25	1,919	22½	1,402
Norwood Lads.....	McMahon.....	.....	.....	.....	.....
Consolation.....	Stewart.....	56	4,859	.....	.....
Black Prince.....	White.....	55½	849	53½	181
Jo' the Marine.....	.....	.....	.....	.....	.....

Name.	Holder.	Lead.	Silver.	Silver.	Silver.	Silver.
		<i>Per cent.</i>	<i>Oz. to ton.</i>	<i>Oz. to ton.</i>	<i>Oz. to ton.</i>	<i>Oz. to ton.</i>
Robert Burns.....	Kitto.....	40	136	628	.....	.....
Hercules Company.....	.....	.....	.....	.....	.....	.....
Pluck Up Company.....	.....	.....	2,858	4,083	9,869	470
Gipsy Girl.....	Brigham.....	72½	80	.....	.....	.....
Hen and Chickens.....	Crispe.....	.....	.....	3,442	.....	.....
Gipsy Girl.....	Brigham.....	66	62	.....	.....	.....
Lubra.....	Crispe.....	.....	.....	1,670	15,921	.....
	Collins and Hawson.....	.....	.....	15,859	18,912	.....
	Sinclair.....	14½	9,175	10,890	.....	.....
	Nicol and Anderson.....	.....	.....	18,148	6,112	310
	Dawes.....	.....	.....	.....	.....	.....
Chanticleer.....	Meech.....	28½	69	.....	.....	.....
	Purcell.....	.....	.....	39	10,151	.....
St. Thomas.....	Thomas.....	16½	1,739	.....	.....	.....
Norwood Lads.....	McMahon.....	.....	.....	8,030	6,868	.....
Consolation.....	Stewart.....	.....	.....	.....	.....	.....
Black Prince.....	White.....	43½	78	469	142	.....
Jo' the Marine.....	.....	.....	.....	4,887	10,724	.....

THE BOOROOK MINES.

Silver in workable quantities was discovered at Boorook near Tenterfield in 1878, in the New England district. This district is one of the most important in the colony and consists of a vast area of high tablelands. It is remarkable both for its agricultural and mineral products. Especial reference was made to this district in my report on the tin-fields of New South Wales, transmitted to the Department in dispatch No. 20, dated the 21st of March last.\*

The country surrounding Boorook is very mountainous and its geological formation consists of sandstone, granite, and slate, the last of which contains marine fossils. The argentiferous reefs are near the junction of the slate and granite. One of the reefs was first worked in 1871 for gold. Specimens of the ore being sent to Sydney the gold was

\* Printed in Consular Reports, June, 1885, pp. 138-145.

found to be associated with a large percentage of silver. The stone becoming poorer, the lode was deserted about the time of the opening of the tin fields in 1872. In 1879 stone was found at a depth of 130 feet, which assayed 830 ounces of silver to the ton. One claim with limited power produced in one week 889 ounces of silver. The Boorook metal is in part an antimonial one, mixed with the chloride, sulphide, and perhaps arsenide of silver. Associated with this mixed ore are found native gold, iron oxide, iron pyrites, chlorite quartz, and other minerals. Mr. Lamont Young, one of the Government geological surveyors, states that the lodes are situated in belts of feldspar porphyry, between beds of altered and fossiliferous shales. Some of the fossils indicate the Upper Devonian formation. The ore itself is generally found in quartz, and the surface of the veins is usually covered with small crystals and much stained with oxide of iron, while the quartz is often very friable. The treatment adopted at first was similar to that for auriferous quartz, the discoverers having at hand a small battery for reducing the stone, and a Berden amalgamating machine. This process had to be abandoned, as considerable quantities of silver were carried away in the tailings.

#### THE GOLDEN AGE MINE.

The Golden Age mine is one of the most promising in New England district. According to the mining inspector the work is carried on in stopes connected by two shafts, one of which is 300 feet and the other 200 feet in depth. The geological formation of the mine to a depth of 200 feet is of black slate lightly impregnated with iron pyrites, and mineral crystals of galena, silver, and blende. At the 200-foot level a lead of hard greenstone, about 30 feet in thickness, with layers of pipe clay, was met with, beneath which the slate again occurs to the depth of 280 feet, when a syenite stratum makes its appearance. The ore as far as it has been proved is richer in the slate than in the greenstone or syenite formation. There are two distinct lodes in this mine—"The Golden Age" proper, which has an underlay to the west of 57 degrees, and a strike of 29 degrees east, and the "Addison Contra lode," which is perpendicular except at the junction with the Golden Age lode, where there is a slight underlay. The strike of the Addison Contra lode is due north. It is at the point of junction where the largest and richest deposits of silver ores have been discovered. The Addison Contra lode averages only 6 ounces of silver per ton, but the Golden Age varies from 40 to 600 ounces per ton. The silver occurs in a variety of forms. At a depth of 75 feet from the surface it was found as chloride and bromide. From this point to the 140-foot level it was argentiferous iron pyrites and blended with sundry spots of silver glance, but below this level it occurs principally in a state of flexible sulphite, of which some magnificent specimens have been obtained. The silver is extracted by the chlorination and amalgamation process. The ore is sorted by hand at the mine and carted to the works in parcels of 20 to 30 tons, containing from 70 ounces to 140 ounces of silver per ton. It is then dried, crushed, and mixed and passed through the roasting chlorinating furnace. When cold enough the chlorinated ore is passed through a circular sieve of 2,500 holes to the square inch so as to separate the grit, which is again crushed through fine gratings, recalcined, and taken to the amalgamators. The poorer ores are crushed



by means of a Marsden fine crusher and concentrated in the ordinary hand giggers. The total amount of silver extracted from the mine is 100,000 ounces.

#### AMERICAN SILVER SMELTING APPLIANCES AT BOOROOK AND SUNNY CORNER.

The European method of smelting silver ore from Silverton and Boorook will shortly be abandoned and the American process adopted. A Provert (American) furnace has already been erected at one of the mines at Silverton and will probably commence work at the end of this month. The Provert furnace has been successfully employed at Sunny Corner, the most prominent silver mine in the colony. It was recently introduced here by Lamonte and Kahlo, and met with so much success that Mr. E. F. Pittman, the chief mining surveyor of the colony, wrote a very elaborate description of it. This process, so well known to those engaged in mining pursuits in the United States, consists in fusing the ore by means of a suitable flux and with the addition of lead when that metal is not found in sufficient quantities in the ore.

Mr. Pittman states that the ore at present operated upon at Sunny Corner is a highly ferruginous ore, or gossan, containing some arsenic and sulphur, a little copper, and assaying on an average about 60 ounces of silver and 10 pennyweights of gold per ton. With this is also used some old tailings, of which there is a large supply averaging about 35 ounces of silver and 2 pennyweights of gold per ton. One of the essential requirements of the process being the presence of a certain proportion of lead, by which the silver and gold are carried down, and from which they are subsequently removed by cupellation, it becomes necessary to add a certain proportion of lead if the ores do not contain a sufficient quantity of that metal. The flux used is limestone, which, with the silica and iron in the tailings and ore, makes a fusible silicate of lime and iron, and the fusion is assisted by some of the old slag. If the ore does not contain iron, a sufficiency of that metal is added in the form of scrap iron. The fuel used is prepared Newcastle coke which costs about £4 (\$19.46) per ton. The furnace, said to be capable of smelting about 50 tons of ore per day, stands upon a sunk base of brick-work, inclosed in a casing of cast iron, which is constructed of sixteen flanged sections, 5 feet in height, bolted together and having a cast-iron plate at the bottom. The crucible, which is situated just above the surface of the ground, is built in the center of the brick work, and is made of the best Stourbridge fire-brick. It is cup shaped and has a diameter of 7 feet and a depth of 21 inches in the center. The walls of that portion of the furnace within which the smelting takes place are constructed of vertical water-jackets, with loose-hinged covers. These water-jackets are made in ten disconnected sections, 4 feet 6 inches high, 2 feet 6 inches wide, and about 6 inches through. They are made of the best wrought iron, and are strapped together at the top and bottom. The water is conveyed to the bottom of each of them by a rubber pipe and escapes by spouts from the top into a trough which surrounds the furnace; from here it flows into a well, when, after cooling, it is again available, being pumped up into a reservoir. A continual circulation of water thus takes place, and the consumption is small, as there is very little loss by evaporation. The inner surface of the wall of the furnace (water-jacket) being cooled by the circulation of water, speedily becomes covered with a coating of slag, which effectually protects it from corrosion, and in this manner the wear and tear of the furnace wall is

reduced to a minimum. The water-jackets are pierced by nine tuyères. The nozzles of five of these are flush with the inner face of the water-jackets, while the remaining four (which are water-tuyères) extend further inwards, their nozzles being about 20 inches from the center of the furnace. Above the water-jackets the furnace is lined with fire-brick for a height of 18 inches. For the first 6 inches the bricks are uncovered, but above that they are protected by a wrought-iron covering. The uncovered space is necessary for the purpose of removing any of the water-jacket sections for repairs, &c. Above the fire-bricks the furnace is formed like an inverted cone, lined with ordinary brick and having a dome-shaped roof. In the sides of the cone, at a height of 11 feet 9 inches above the crucible, are three feeding holes, where the charges of fuel, ore, and fluxes are thrown in. From the center of the dome-shaped roof springs a vertical cylinder of wrought iron, closed at the top but having a small trap door. Just above the dome a horizontal wrought-iron flue leads from the vertical cylinder to a brick condensing chamber, at the base of a high stack. Attached at intervals to the lower side of this horizontal flue are a number of small V-shaped chambers, closed at the bottom by slides. These are for the purpose of catching the bulk of the condensed fumes, and as the latter contain both silver and lead they are returned to the furnace. The blast is supplied by a "Baker blower," size 5 feet by 4 feet, which is driven at the rate of about one hundred revolutions per minute, and which forces the air into a windpipe, about 1 foot square in section, surrounding the furnace above the water jackets. The air is thence conducted by canvas pipes to the tuyères. The ore when it comes from the mine is first broken to the size of walnuts in a Dodge crusher (of a similar type to the ordinary alligator-jaw crushers). It is then ground fine in a Dodge pulverizer, which consists of a revolving, horizontal cylinder, covered with screens, and protected on the inside by iron laths. The pulverizing is effected inside the cylinder by from twenty to fifty cannon balls, the number being varied according to the hardness of the ore. If the ore does not contain sufficient lead it is now subjected to treatment in the "lead bath," which necessitates its being thoroughly dried. For this purpose it is removed to a long drying furnace, which is so constructed that the flame returns over itself, thus providing three drying floors where the moisture is thoroughly expelled. It is then introduced into the "lead bath," which consists of a cast-iron caldron filled with molten lead, to the bottom of which the powdered ore is forced by means of a plunger working in a cylinder. The ore as it rises to the surface is coated or mixed with litharge and shots of metallic lead. It is skimmed off the surface and is then ready to be mixed with the fluxes.\* The ore is now weighed and mixed with the requisite proportion of limestone, broken to the size of walnuts, slag dust from the condensing flues, and, if necessary, scrap-iron.

The furnace, being in blast, is fed continuously as the contents subside, with successive charges of coke and mixed ore and flux. The coke is used in the proportion of 1 ton to every 5 tons of ore. The lead bullion, containing the silver and gold, as it collects in the crucible, escapes by means of a siphon to a heated basin outside the furnace, whence it is ladled into ingot molds, each holding about 80 pounds of metal. The slag is tapped at intervals from tap-holes situated immedi-

\* Should the ore contain sufficient galena in the first instance, the treatment in the pulverizer, drying furnace, and lead bath would be omitted, and it would, after being roasted, be taken direct to the mixing floor.



ately over the surface of the metal in the crucible. A certain proportion of the slag, as before stated, is used for flux; the remainder is carried away in basin-shaped molds attached to wheels.

The ingots of lead bullion are now assayed to ascertain the proportion of silver and gold contained in them. They are then introduced into cupelling furnaces. The cupels are made by tamping bone ashes with a rod, and each cupel occupies one man twelve hours in making. The frames are somewhat oval-shaped, but wider at the end nearest the front of the furnace. Each frame weighs about 125 pounds, being made of cast iron, and holds about 350 pounds of bone ash. Through an aperture in the back of each cupel furnace a jet of steam plays over the surface of the molten lead or bullion. It is claimed that the steam aids in the more rapid oxidation of the lead, besides tending to blow the litharge forward into the channel which is cut across part of the wider ends of the cupel and which communicates with a small hole by which the litharge escapes to the floor beneath the surface.

The metal now left in the cupels consists of silver and gold, with traces of copper, &c. It is next treated in the refiners—small open firebrick-lined furnaces, circular in section and sufficiently large to allow coke room, round moderately large plumbago crucibles. The metal is smelted in these with a flux consisting of borax and niter. The oxides of the baser metals rise to the surface, forming a scum, which is removed, and the purified bullion is run into ingots, which upon assay yield 996 to 999 parts of silver and gold in 1,000.

The American furnace erected by Messrs. Hudson Brothers at their works at Clyde is called the "Gafford," after the patentee, and differs from the Provert in having no brick-work lining above the crucible, the whole of the furnace walls being constructed of water jackets. This modification would appear to be an improvement in so far as it tends to lessen the necessity for repairs to the inside of the furnace. In other respects the principle of the two furnaces is the same.

#### THE EXPORT OF SILVER.

Until American smelting machinery was introduced here the bulk of the silver product of this colony was obtained during the process of refining gold by passing chlorine gas through it.

I give below a table showing the quantity and value of the silver exports since 1875.

*Table showing the quantity and value of silver exported from the colony of New South Wales from 1875 to June 1, 1885, inclusive.*

Year.	Quantity.	Value.
	<i>Ounces.</i>	
1875.....	52,553	\$63,970
1876.....	60,179	77,270
1877.....	31,400	33,365
1878.....	60,563	66,455
1879.....	83,164	91,355
1880.....	91,449	109,330
1881.....	57,254	65,130
1882.....	38,618	55,020
1883.....	108,080	114,900
1884.....	93,660	99,100
1885 (January 1 to June 1).....	236,298	283,555

**THE MILLER PROCESS FOR REFINING GOLD AND SILVER.**

This process was discovered in 1868 by Mr. F. Boyer Miller, then one of the assayers to the Sydney mint and now superintendent of the bullion office in the Melbourne branch. It was introduced on a practical scale in 1869, when over 200,000 ounces were treated; since then it has been applied to the whole of the gold brought to the Sydney mint for coinage, with the exception of such small quantities as had been previously refined. The total weight operated on at the Sydney mint has amounted to more than 6,600,000 ounces (or 20 tons), and the value of the silver extracted and sold to \$875,000, of which \$200,000 have been paid over as revenue, and the remainder to the owners of the gold. The average assay of the refined gold, which in 1869 was .9931, is now .9965. These results have been obtained with comparatively little expense, while the introduction of the process has been in many ways of the greatest advantage to the successful working of the mint.

The chlorine process has also been in use at the Melbourne branch since its opening in 1872 and over 7,000,000 ounces of gold have been refined with the same satisfactory results.

Mr. Miller stated in his application for a patent that his invention has for its object the toughening of brittle gold bullion and the refining of alloyed gold, whether naturally or artificially alloyed, together with the separation of any silver it may contain. The operations requisite may be performed on the sole of a reverberatory or other furnace or in retorts made of some refractory material, or, as the inventor prefers, in good clay crucibles.

The crucibles are prepared by dipping them in a strong solution of borax in hot water, and subsequently drying them. In these the gold to be operated on is melted in the ordinary manner with the addition of one-half of 1 per cent. of fused borax, a well-fitting cover having first been luted over the mouth of each crucible employed. In this cover are one or more holes to allow of the introduction of a tube or tubes constructed of some suitable refractory material, such as fire-clay descending to the bottom of the crucible and through which chlorine gas or hydrochloric acid gas is forced while the gold is still in a melted state. After the chlorine gas or hydrochloric acid gas has been thus passed through the melted gold for a sufficient time, which necessarily varies according to the quantity and quality of the gold operated on, the silver and baser metals are converted into chlorides, and rise to the surface of the refined gold. The more volatile chlorides partially escape, and the remainder is easily removed by pouring the entire contents of the crucible into the molds and taking out the cake of chloride as soon as cold, or by allowing the gold to cool sufficiently to set or become solid, but not to become so cold as to prevent the more fusible chlorides from being poured off to be subsequently reduced to the metallic state by any of the well-known methods.

**SUNNY CORNER.**

The Sunny Corner silver mine is by far the most important mine in the colony. It is situated about 127 miles from Sydney and 25 miles east of Bathurst (the third town in New South Wales) and only 15 miles north of Rydal on the Great Western Railway. The nearest railway station is Piper Flat, 7 miles on the Mudgee line. The land occupied by the mine was originally applied for as a "mineral lease," for the purpose of mining for copper, but it was subsequently worked as a gold

mine with variable success, and a considerable quantity of silver was allowed to remain unextracted in the tailings. The geological formation of the country is paleozoic (Siluri Devonian) and consists of more or less altered slates and sandstones forming steep mountain ranges and deep valleys. Only a few of the numerous lodes which occur in these ranges have been more than superficially prospected.

The lode in Sunny Conner mine proper is irregular in width and occupies a series of fissures or cavities along a "line of fault," which occurs in the axis of an anticlinal curve. The vein stuff from this lode has been described in a former part of this paper. Another lode to the north is worked by the Nevada company, and has been found to contain a good proportion of galena and copper pyrites. Several shafts have been sunk north of Sunny Corner on a mineral lode 2 or 3 feet in thickness, and apparently a continuation of the lode in Sunny Corner. A tunnel is being driven to intersect the lode sunk on the hill. This tunnel is 170 feet in length. A lode of black-jack was struck at the end of the tunnel, intermixed with malleable or native copper. The inspector of mines states that in removing the black lode in the face of the tunnel, water made its appearance, and a beautiful sight met the eye, for, as the water forced through the black slate, narrow, horizontal quartz veins became visible, containing a large percentage of native copper. This copper had no doubt been in a solution coming from some copper deposits higher up the hill, and was gathered by the action of silicate and the natural backing up of the water against the black lode. About 120 feet up the hill there is a large quartz reef, said to contain 6 pennyweights of gold per ton by crushing, and still higher up is the mineral lode, to intersect which the tunnel is driven. Out of one of the shafts in this lode, and 30 feet deep from the surface, the inspector tried a prospecting dish full of stuff, and it was found to contain 2 grains of gold. The lode is 9 feet thick.

The company will shortly have four or five furnaces in operation, each of which is capable of smelting about 50 tons of ore per day. Mr. Nixon, mining surveyor, estimates the ore in sight and available for smelting at about 80,000 tons, and as the average amount of silver to the ton has, up to the present time, proved to be 45 ounces, the total product of the ore at this rate would be 3,600,000 ounces of silver.

From the 1st of January to the 1st of June of the present year the company has shipped to England 232,298 ounces of silver, valued at \$278,755, forming the total exports of silver from the colony, with the exception of 4,000 ounces obtained from the mint.

G. W. GRIFFIN,  
*Consul.*

UNITED STATES CONSULATE,  
*Sydney, N. S. W., June 16, 1885.*

## BELGIUM.

REPORTS BY CONSUL SLADE ON STATISTICS OF IRON AND STEEL PRODUCTION  
AND OF TRADE BETWEEN THE UNITED STATES AND BELGIUM.

Statistics of the iron and steel production for the first six months of the year 1885.

[Tons of 1,000 kilograms = 2,205 pounds.]

Administrative division of mines.	Coal mines.		Blast furnaces.			
	Number worked.	Total product.	Pig-iron for foundries.	Other pig-iron.	Pig-iron for steel.	Total product.
First division.....	78	6,314,440	5,700	178,650	.....	179,350
Second division.....	68	2,139,418	32,925	78,649	64,547	176,121
The Kingdom.....	146	8,453,858	38,625	252,299	64,547	355,471
First six months 1884.....	148	9,010,695	28,339	277,696	71,461	377,496

Administrative division of mines.	Iron works.			Steel works.	
	Rails and sheets.	Other manufactured iron.	Total product.	Cast steel and bars.	Rails, sheets, and other manufactures of steel.
First division.....	25,727	137,865	163,592	4,137	4,391
Second division.....	25,966	38,304	64,270	58,308	42,561
The Kingdom.....	51,693	176,169	227,862	62,445	46,952
First six months 1884.....	57,113	173,009	230,122	87,826	71,375

## Trade of Belgium with the United States.

Merchandise.	Exports to United States.		Imports from United States.	
	1885.	1884.	1885.	1884.
	<i>Francs.</i>	<i>Francs.</i>	<i>Francs.</i>	<i>Francs.</i>
Arms.....	291,800	522,200	34,074	35,863
Books.....	12,948	32,088	.....	.....
Clothes.....	896,558	850,498	.....	.....
Chemicals.....	337,995	139,026	9,800	1,540
Cotton.....	.....	.....	12,493,486	6,445,000
Cotton goods.....	240,504	245,568	.....	.....
Copper and nickel.....	.....	.....	1,872,141	374,550
Eggs.....	245,080	28,800	.....	.....
Flour.....	.....	.....	1,672,500	2,684,556
Fruits, dried.....	.....	.....	197,664	5,904
Glass:				
Bottles.....	2,737	15,184	.....	.....
Plate.....	534,453	200,778	.....	.....
Window.....	4,177,412	7,091,950	.....	.....
Glassware.....	173,486	64,154	.....	.....

*Trade of Belgium with the United States—Continued.*

Merchandise.	Exports to United States.		Imports from United States.	
	1885.	1884.	1885.	1884.
<b>Grain:</b>	<i>Francs.</i>	<i>Francs.</i>	<i>Francs.</i>	<i>Francs.</i>
Wheat.....			24,507,339	29,251,140
Rye.....			248,764	5,151,816
Barley.....			6,270	
Oats and corn.....			5,046,808	1,381,696
Oil-aginous.....			595,862	34,765
Herring.....	3,560	189		
Hides, raw.....	315,624	958,274	261,336	268,578
Hides, tanned.....	107,305	448,715		
<b>Iron:</b>				
Old scrap.....	23,275	89,100		
Wire.....	33,000	65,900		
Rails.....		993,373		
Manufactures.....	580,376	487,655		
Lace.....	13,700	3,500		
Lard and grease.....	869,993	357,193	8,328,997	4,296,730
Linen goods.....	51,000	13,000		
Machinery.....	238,098	362,954		
Meat.....			5,310,710	3,017,628
Molasses and sirup.....			842,868	186,646
Paper.....	48,698	107,847		
Peas and beans.....			42,504	
Petroleum.....			9,850,811	9,494,053
Potatoes.....	37,812	10,129		
Rags.....	73,210	293,188		
Rice.....			108	61
Ruin and bitumen.....	53,378	105,840	1,917,875	1,994,902
Silk goods.....	20,405	55		
Starch.....			43,552	49,186
Soda.....	64,348	41,981		
Sugar.....	1,561,828	826,138		
Steel, in bars.....	1,753,560	1,972,042		
<b>Tobacco:</b>				
Leaf.....			2,009,544	609,678
Cigars.....			156,200	182,250
Wool.....	1,126,725	99,965		
Woolen goods.....	318,678	441,106		
<b>Wood:</b>				
Unsawed.....			211,475	253,000
Sawed.....			870,480	541,520
<b>Zinc.....</b>	94,514	82,102		
<b>Total.....</b>	<b>13,802,020</b>	<b>16,967,967</b>	<b>76,531,237</b>	<b>66,262,220</b>
<b>Total.....</b>	<b>\$2,663,789</b>	<b>\$3,274,821</b>	<b>\$14,770,529</b>	<b>\$12,609,687</b>

WILLIAM SLADE,  
Consul.

CONSULATE OF THE UNITED STATES,  
Brussels, August 12, 1885.

**BOLIVIA.****REPORT BY CONSUL-GENERAL GIBBS ON COCA.\***

I have the honor to acknowledge the receipt of circular of January 13 last, with copy of letter from the Hon. W. E. Chandler, Secretary of the Navy, in regard to the difficulty of procuring coca for the United States of a reliable quality, and inquiring where the best varieties of coca are found, what is the best mode of preparing it for transportation, and how

\* Reports upon coca from Consul Merriam, of Iquique, and Consul Brent, of Callao, were printed in Consular Reports No. 55 (August, 1885), pp. 659, 660.

this product can be brought within reach of the American purchaser. I have been in communication with the leading dealers and have gathered the following data:

This city is the great emporium of the coca trade. The article is brought from the province of Yungas, situated about 60 miles east-north-east of this capital, where the plant is raised in that part lying between latitude  $15^{\circ} 30'$  and  $16^{\circ} 30'$  south, and longitude  $65^{\circ}$  to  $68^{\circ}$  west. This section is filled with deep hollows or valleys and mountain ridges crossing in every direction, giving all kinds of climates, fruits, and vegetable productions; the celebrated Yungas coffee bean, cocas, chocolate bean, quinia, oranges, figs, platanos or bananas, grapes, alligator pears or aguacate, choiamoyas, apples, pears, peaches, plums, quinces, apricots, strawberries, mangoes, cherries, and sugar-cane, all are gathered from the sides of the mountains, from the lower villages, up to the cool temperate heights. It is the great coca-producing country, though an inferior quality is grown near Cuzco, Peru. When raised in a warm climate the leaves are thicker and not of a high quality. The sides of the mountains are terraced about a yard wide, the coca being a small bush growing from 2 to 4 feet in height, and in warm places even higher. It is collected by women generally, leaf by leaf, each bush giving three crops a year and four in parts where the climate is warm. Each crop is called a *mita*. The first is called the March crop, and commences in January; the second is called the "St. John's," beginning in May, and the third "All Saints," which is gathered in October; but all are regulated by the conditions of weather and soil where the coca is grown, and are not uniform. A temperate climate and plenty of moisture are required to produce the most delicate leaves and finer quality. The best is grown at an altitude of from 3,000 to 6,000 feet above the sea-level.

It is sown in beds from seed, and when some 8 or 10 inches in height transplanted, care being taken that no other plants or grasses are allowed to grow with it. No fertilizer of any kind is used. Great care is taken in collecting the leaves, as it is a very sensitive or delicate plant. The Indian women who gather them squat or sit down in front of the bush and pull the leaves, tenderly, being careful not to touch the apex or the top part of the bush, for should they do so the leaf would wither. If any animal rubs against it it will wither and dry up. Following the women are men with large sacks, who take from the gatherers the leaves collected and carry them to the *cachi*, or yard where they are dried. These yards are inclosed and paved with flat stones well jointed and kept clean. The sun, striking down on the stones in the morning, heats them, and the leaves, spread over the stones, are dried in a few hours, when they are again collected and carried to a press, simply constructed of a hard wood of the country, and having a cross-beam. About 25 pounds of leaves make a *certa*, which is a bale covered with a coarse cloth, and two *certas* form a package called *tambor* (drum). This last package, wrapped in the bark of the banana tree, which, when fresh, is quite soft and pliable and soon dries, is a bundle of about 11 by 15 by 17 inches. The leaves when packed retain their green color, but are completely dry, and in this manner they are brought to this city and deposited in the *adriano de coca*, or coca custom-house. About 75 per cent. is brought to this place and the balance is sold dried by the middlemen in the adjacent villages and to the residents of the Andean plateau.

That which is exported from Bolivia is put up in 150-pound packages, in hides or coarse cloth, carefully coated with a species of turpentine, as



the least moisture will spoil it. Two bales or 300 pounds make one mule load.

The annual production is about 7,500,000 pounds, of which there is consumed in Bolivia about 55 per cent.; in the Argentine Republic about 15 per cent.; on the Chilian coast about 15 per cent.; in Peru about 10 per cent.; in the United States and Europe about 5 per cent.

The principal consumers of Bolivia are the Aymara and Quichua races, who are the descendants of the ancient Peruvians of the time of the Incas. The Aymara race and language is dominant around Lake Titicaca, particularly on the eastern side and in the provinces of Puno and Chuquito, and predominates on the Andean plateau from the Mapiri River and in the provinces of Larecaja, Omasuyos, Yungavi Sicasica, reaching south to Oruro in 17° 40' latitude.

The Quichua race and language are prominent in the rest of Bolivia and all through the interior of Peru.

The consumers of coca in the Argentine Republic are the gauchos, the llaneros or herdsmen of that country, who roam over the interior up to the Bolivian territory on the north and to the Chilian on the west, that is to the foot of the Andean range. The rotos, or the peones of Chili, use it on the coast, particularly in the mines of Coprapo and the nitrate fields of Tarapaca and Atacama.

I have found buried with the ancient Peruvians in many cases small quantities of coca leaves, and always a small earthen vase that held lime or potash, which was and is still used with the coca. The potash is chiefly made from the bark of a bean plant, a cereal greatly used by the Indians. The whites seldom use coca except as an infusion, made in the same manner as tea; but the first water is thrown away as too strong, and the second water makes it pleasant to the taste.

From coca the Government collects a revenue, which is farmed out or sold to the highest bidder, sealed proposals being received for the privilege. The tax on the producers or planters is 90 cents per certa of 25 pounds, and of this tax the greater part goes to the Government and the balance to the construction of roads through the rough country of the Yungas province. The contracts are for one year, running from the 11th of June to the 10th of June in the following year. The last contract (1884-'85) was bid in for 235,880 bolivianos, of which 215,360 bolivianos go to the Government, and to the road commissioner 20,520 bolivianos. Dealers who buy from small producers pay 1.20 bolivianos; the tax gatherer gives *ginas* or transit bonds, and all coca is deposited here in the coca warehouse, to be withdrawn as wanted.

The price varies according to demand and supply; it is sold by the old currency, *pesos febles* (soft dollars), of 80 cents.

Years.	Pesos per certa.	Bols. per qtl.	Years.	Pesos per certa.	Bols. per qtl.
1875.....	14. 00	44. 80	1880.....	12. 00	38. 40
1876.....	12. 00	38. 40	1881.....	12. 00	38. 40
1877.....	10. 40	33. 60	1882.....	13. 40	41. 60
1878.....	8. 00	25. 60	1883.....	15. 40	49. 60
1879.....	9. 40	30. 40	1884.....	18. 00	57. 60

On account of the drought of last year it is now quoted at 20 pesos per certa, or 64 bolivianos per qtl. All that is exported is sent to Arica and Mollendo.

My principal information has been obtained from the very respect-



able and one of the most important commercial houses in Bolivia, of Messrs. V. Farfar & Co., who are the heaviest dealers and exporters of the coca, and, at the same time, proprietors of four large plantations in Yungas.

Coca is retailed in the small stores and from the sidewalks to consumers from the original packages.

RICHARD GIBBS,  
*Consul-General.*

UNITED STATES CONSULATE-GENERAL,  
*La Paz, March 5, 1885.*

## BRITISH GUIANA.

### REPORT ON THE CUSTOMS TARIFF OF BRITISH GUIANA.

The customs tariff of British Guiana, as revised in June for the year ending July 1, 1886, shows the following changes when compared with the tariff of 1882, as printed in "Commercial Relations of the United States," No. 26½ (December, 1882):

Articles.	New rate.	Old rate.	Articles.	New rate.	Old rate.
Arrowroot.....per lb..	\$0 00½		Sago.....per lb..	\$0 00½	\$0 02
Cigars and cigarettes .....do....	1 20	\$0 75	Snuff.....do....	75	50
Coals.....per hgd..	32	24	Spirits, or strong water of all sorts:		
Coals (loose).....per ton..	48	36	Not sweetened, &c. per gall..	2 50	2 00
Corn, &c.....per bush..	10	05	Sweetened, liqueurs, bitters, and cordials.....per gall..	2 50	2 00
Ganje.....per lb..	3 00	50	Tapioca.....per lb..	00½	02
Ginger (raw).....do....	01	05	Tobacco:		
Gunpowder (blasting).....do....	01	20	In leaf, in packages not less than a hogshead of 800 lbs.....per lb..	30	25
Matches:			In leaf, in smaller packages, per lb.....	45	35
In packages not less than 10 gross of boxes...per gross..	40	20	Manufactured, cigars, cigarettes, and snuff excepted, per lb.....	45	35
In packages less than 10 gross of boxes.....per gross..	80	40	Wine, red, admitted as claret or Tarragona, the declared value of which shall not exceed \$2 per gallon, if in wood, and containing less than 33 per cent. of proof spirit (Sykes' hydrometer).....per gall..	50	35
Oats.....per bush..	10	05			
Opium, charas or bhang...per lb..	2 50	2 00			
Oils:					
Other than gasoline, which give off an inflammable vapor at a temperature of less than 73° F.....per gall..	3 00	3 00			
All other, including gasoline (essential, perfumed, and castor oils excepted)...per gall..	20	15			
Pistols, including revolvers, each.	10 00	5 00			

"Upon all other goods, wares, and merchandise not hereinbefore enumerated which shall be imported or taken out of bond on and after the 1st day of July, 1885, and until the 1st day of July, 1886, there shall be raised, levied, collected and paid, during the period aforesaid, an ad valorem duty at the rate of 7 per cent, or \$7 upon every \$100, of the value of such goods, wares, and merchandise at the place of shipment." (Old rate 10 per cent.)

Personal baggage of passengers arriving in the colony from abroad, pickled beef, and pork and lard have been added to the free list. (No. 9, 1885.)

## CANADA.

*REPORT BY COMMERCIAL AGENT HOTCHKISS ON THE CANADIAN CUSTOMS TARIFF.*

Mr. Thomas W. Hotchkiss, United States commercial agent at Ottawa, Canada, sends (August 4, 1885,) the following changes made in the tariff laws of Canada by the Dominion Parliament in its session of 1885, and circular No. 357 of the Canada customs department :

**AN ACT** of Dominion Parliament, Ottawa, Canada (session of 1885), to amend the several acts relating to duties of customs.

In amendment of the several acts imposing or relating to duties of customs or excise, the prohibition of the importation or exportation of certain goods, and the other matters hereinafter mentioned, Her Majesty, by and with the advice and consent of the senate and house of commons of Canada, enacts as follows :

*First.* The duties (if any) imposed by any act now in force on the following articles, respectively, now admitted free by order in council, under the authority of subsection 12 of section 230 of "The customs act, 1883," are hereby repealed, and the said articles are hereby added to the list of free goods, Schedule B, of the act passed in the forty-second year of Her Majesty's reign, and entitled "An act to alter the duties of customs and excise":

Gas coke when used in Canadian manufactures only.

Steel imported for use in the manufacture of skates.

Musk in pods or in grains.

White shellac for manufacturing purposes.

Jute cloth, as taken from the loom, neither pressed, mangled, calendered, nor in any way finished, and not less than 42 inches wide, when imported to be manufactured into bags only.

Salt cake, being a sulphate of soda, when imported by manufacturers of glass and soap for their own use in their works.

"Foot grease," the refuse of cotton-seed after the oil is pressed out.

Tagging metal, plain, japanned, or coated, in coils not over 1½ inches in width, when imported by manufacturers of shoe and corset laces, for use in their factories.

Locust beans for the manufacture of horse and cattle food.

Hoop iron, not exceeding three-eighths of an inch in width and being No. 25 gauge or thinner, used for the manufacture of tubular rivets.

Buckram for the manufacture of hat and bonnet shapes.

Recovered rubber and rubber substitute.

Silver and German silver in sheets for manufacturing purposes.

Steel of No. 20 gauge and thinner, but not thinner than No. 30 gauge, to be used in the manufacture of corset steels, clock springs, and shoe shanks, when imported by the manufacturers of such articles for use in their factories.

Cotton yarns finer than No. 40, unbleached, bleached, or dyed, and not finer than No. 60, for the manufacture of Italian cloths and worsted fabrics.

Steel in sheets of not less than 11 nor over 18 wire gauge, and costing not less than \$75 per ton of 2,240 pounds, when imported by manufacturers of shovels and spades for use exclusively in such manufacture in their own factories.

Red liquor, a crude acetate of alumina, prepared from pyroligneous acid, for dyeing and calico printing.

Iron liquor, solution of acetate of iron, for dyeing and calico printing.

And also the following unenumerated articles :

(1) Precious stones, viz :

Agate, amethyst, aqua-marine, bloodstone, carbuncle, catseyes, cameo, coral, cornelian, crystal, crysolite, crosordolite, emerald, garnet, intaglio, inlaid or incrustated stones, onyx, opal, pearl, ruby, sardonyx, sapphire, topaz, and turquoise, not polished nor otherwise manufactured.

(2) Bichromate of soda.

(3) Sulphate of iron (copperas).

(4) Indigo auxiliary.

(5) Fancy grasses, dried, but not colored or otherwise manufactured.

(6) Oil-cake meal.

(8) Paintings in oil or water colors, the production of Canadian artists, under regulations to be made by the minister of customs.

And to the description of the following articles now in the said free list, as amended by subsequent acts, the explanations and additions hereby appended to each, respectively, in italic letters, are added as part thereof, viz :

(1) Duck for belting and hose, *when imported by manufacturers of rubber goods for use in their factories.*

(2) Mineral waters, natural, *not in bottle.*

(3) Pitch (pine), *in packages of not less than 15 gallons.*

(4) Pumice and pumice-stone, *ground or unground.*

(5) Quercitron or extract of oak bark, *for tanning.*

(6) Resin, *in packages of not less than 15 gallons each.*

(7) Steel railway bars or rails, *not including tram or street rails.*

(8) Tar (pine), *in packages of not less than 15 gallons each.*

*Second.* The duties of customs (if any) imposed by any act now in force, on the following articles respectively, are hereby repealed, except in so far as they are the same as those hereinafter mentioned, and the rates of duty hereinafter mentioned are substituted for them respectively :

(1) Checked, striped, or fancy cotton winceys, over 25 inches wide, 2 cents per square yard and 15 per cent.

(2) All fabrics composed wholly or in part of wool, worsted, the hair of the alpaca goat or other like animals, not otherwise provided for, 22½ per cent.

(3) Winceys of all kinds, not otherwise provided for, 22½ per cent.

And the item No. 34, in the list of dutiable goods, in section 2, of the act 46 Victoria, chapter 13, and all items relating to winceys in section 2, of the act 44, Victoria, chapter 10, are hereby repealed.\*

(3a) Pickles and sauces, 25 per cent.

(4) Barrels containing petroleum, or its products, or any mixture of which petroleum is a part, 40 cents each.

(5) Cutlery, not otherwise provided for, 25 per cent.

(6) Red prussiate of potash, 10 per cent.

(7) Moldings of wood, plain, 25 per cent.

(8) Moldings of wood, gilded or otherwise further manufactured than plain, 30 per cent.

(9) Picture frames, as furniture, 35 per cent.

(10) Imitation precious stones, not set, 10 per cent.

(11) Manila hoods, 20 per cent.

(12) Umbrellas, parasols, and sunshades of all kinds and materials, 30 per cent.

(13) China and porcelain ware, 30 per cent.

(14) Earthenware and stoneware, brown or colored, and Rockingham ware, 30 per cent.

(15) House furnishing hardware not otherwise provided for, 30 per cent.

(16) Chains (iron or steel) over nine-sixteenths of an inch in diameter, 5 per cent.

(17) Acid, acetic, 25 cents per imperial gallon and 20 per cent.

(18) Tissue paper, white or colored, when imported by manufacturers of artificial flowers for use in their factories, 10 per cent.

(19) Glucose sirup, 2 cents per pound.

(20) Carpets, viz : Brussels, tapestry, Dutch, Venetian, and damask, carpet mats and rugs of all kinds, and printed felts and druggets, and all other carpets and squares, not otherwise provided for, 25 per cent.

(21) Plate glass, not colored, in panes not over 30 square feet, 6 cents per square foot.

(22) Plate glass, in panes over 30 and not over 70 square feet, 8 cents per square foot.

(23) Plate glass, in panes over 70 square feet, 9 cents per square foot.

(24) Labels, for fruit, vegetables, meat, fish, confectionery, and other goods, also tickets, posters, advertising bills and folders, 10 cents per pound and 20 per cent.

(25) Sheet-iron hollow ware, and all manufactures of sheet iron, not elsewhere specified, 25 per cent.

(26) Asbestos, in any form other than crude, and all manufactures thereof, 25 per cent.

(27) Axle grease and similar compounds, 1 cent per pound.

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\* In the Canadian tariff as printed in 1884 the following paragraphs covered winceys:

"Winceys, plain, of all widths, when the material is not over one-fourth wool, 20 per cent. ad valorem.

"Checked, striped, or fancy, not over 25 inches wide, 20 per cent. ad valorem.

"Checked, striped or fancy dress winceys over 25 inches wide, and not over 30 inches, when the material is not more than one-fourth wool, 2 cents per yard and 15 per cent. ad valorem.

"But all checked, striped, or fancy winceys over 30 inches wide, shall be subject to duty as woolen goods when the material is partly wool."

(28) Cotton bed quilts, not including woven quilts or counterpanes, 27½ per cent.

(29) Extract or fluid beef, not medicated, 25 per cent.

(30) Towels of every description, 25 per cent.

(31) Damask of cotton, of linen, or of cotton and linen, bleached, unbleached, or colored, 25 per cent.

(32) Umbrella and parasol steel, iron or brass ribs, runners, rings, caps, notches, tin caps and ferrules, when imported by and for the use of manufacturers of umbrellas, 20 per cent.

*Third.* On cigars and cigarettes there shall be levied and paid a specific duty of customs of \$1.20 per pound and 20 per cent.

*Fourth.* Fish shall be chargeable with, and there shall be collected thereon, the following rates of duty, viz :

Mackerel, 1 cent per pound.

Herrings, pickled or salted, ½ cent per pound.

Salmon, pickled, 1 cent per pound.

All other fish, pickled, in barrels, 1 cent per pound.

Foreign-caught fish, imported otherwise than in barrels or half-barrels, whether fresh, dried, salted, or pickled, not specially enumerated or provided for by this act, 50 cents per 100 pounds.

Fish, smoked and boneless fish, 1 cent per pound.

Anchovies and sardines, packed in oil or otherwise, in tin boxes measuring not more than 5 inches long, 4 inches wide, and 3½ inches deep, 5 cents per box ; in half-boxes, measuring not more than 5 inches long, 4 inches wide, and 1½ deep, 2½ cents per box ; and in quarter-boxes, measuring not more than 4½ inches long, 3½ inches wide and 1½ deep, 2 cents per box. When imported in any other form, 30 per cent.

Fish, preserved in oil, except anchovies and sardines, 30 per cent.

Salmon and all other fish prepared or preserved, including oysters, not specially enumerated or provided for in this act, 25 per cent.

Oysters, shelled, in bulk, 10 cents per gallon.

Oysters, canned, in cans not over 1 pint (including the cans), 3 cents per can.

In cans over 1 pint and not over 1 quart (including the cans), 5 cents per can.

In cans exceeding 1 quart in capacity, an additional specific duty of 5 cents for each quart or fraction of a quart of capacity over a quart, including the cans.

Oysters in the shell, 25 per cent.

Packages containing oysters or other fish, not otherwise provided for, 25 per cent.

Oil, spermaceti, whale and other fish oils, and all other articles the produce of the fisheries, not specially provided for, 20 per cent.

*Provided,* That the whole or part of the duties imposed by this section may be remitted upon proclamation of the governor in council, which may be issued whenever it appears to his satisfaction that the Governments of the United States and the island of Newfoundland, or of either of them, have made changes in their tariffs of duties imposed upon articles imported from Canada, in reduction or repeal of the duties in force in the said countries respectively.

*Fifth.* Items 18 and 20, in section 2, of the act 47 Victoria, chapter 30, under the heading "Sugars, sirups, and molasses," are hereby amended, by adding to the words "sugar" and "sugars," respectively, whenever they occur in the said items, the words "raw or unrefined," and by adding, under the said heading, after the said items 18 and 20, the following item : "On refined sugars of all grades or standards there shall be levied and collected a specific duty of 1 cent per pound and an ad valorem duty of 35 per cent."

*Sixth.* The rates of duty now payable under Schedule A of the act 42 Victoria, chapter 15, on Geneva gin, rum, whisky, and unenumerated articles of like kinds, and on brandy, are hereby repealed ; and there shall be levied and collected :

On Geneva gin, rum, whisky, and unenumerated articles of like kinds, \$1.75 per imperial gallon.

On brandy, \$2 per imperial gallon.

*Seventh.* The specific duty of 20 cents per pound imposed on manufactured tobacco and snuff by item 61 of section 2 of the act 46 Victoria, chapter 13, is hereby repealed, and the specific duty on the said articles shall be 30 cents per pound.

*Eighth.* So much of Schedule A of the act 42 Victoria, chapter 15, as imposes a duty of 10 per cent. ad valorem on endless felt for papermakers is hereby repealed.

*Ninth.* Item 7 of section 2 of the act 46 Victoria, chapter 13, and the whole of section 5 of the said act are hereby repealed.

\* \* \* \* \*

*Eleventh.* Section 9 of the act 42 Victoria, chapter 15, entitled "An act to alter the duties of customs and excise," is hereby repealed, and the following provisions are substituted therefor :

"(9) In determining the dutiable value of goods, except when imported from Great

Britain and Ireland, there shall be added to the cost or the actual wholesale price, or fair market value, at the time of exportation, in the principal markets of the country from whence the same have been imported into Canada, the cost of inland transportation, shipment, and transshipment, with all the expenses included, from the place of growth, production, or manufacture, whether by land or water, to the vessel in which shipment is made, either *in transitu* or direct to Canada, subject to such regulations as may be made by the governor in council: *Provided*, That in case of any dispute respecting the proper amount of such inland transportation charges the minister of customs may determine the same, and his decision shall be final in that respect."

"(2) When any manufactured article is imported into Canada in separate parts, each such part shall be charged with the same rate of duty as the finished article, on a proportionate valuation, and when the duty chargeable thereon is specific, or specific and ad valorem, an average rate of ad valorem duty, equal to the specific or specific and ad valorem duty so chargeable, shall be ascertained and charged upon such parts of the manufactured article."

*Twelfth.* Partridge, prairie fowl, and woodcock are hereby added to the articles the exportation of which is prohibited by section 9 of the act 46 Victoria, chapter 13, under the penalty and forfeiture imposed by the said section for the offense of exporting articles the exportation of which is thereby prohibited.

*Thirteenth.* The importation into Canada of all goods manufactured or produced, wholly or in part, by prison labor, or which have been made within or in connection with any prison, jail, or penitentiary, is hereby prohibited, under a penalty of \$200, together with the forfeiture of such goods and the parcels or packages in which they are contained.

*Fourteenth.* The foregoing sections of this act shall be held to have come into force, respectively, on and after the days hereinafter mentioned as to each of them, that is to say: Sections 1 and 2, on and after the 1st day of April, in the present year, 1885; section 3, on and after the 4th day of March in the said year; section 4, on and after the 1st day of July in the said year; sections 5, 6, 7, 8, 9, 10, 11, and 12, on and after the 6th day of July in the said year; and section 13, on and after the 27th day of March in the said year. And on and after the day on which each section, respectively, is to be so held to have come into force, the alterations made by such section in the duties of customs or excise, or as to the mode of valuation for duty, or otherwise howsoever, shall be held to have taken effect and applied, and the duties thereby imposed to have been and to be payable on all goods imported or taken out of warehouse for consumption, or becoming subject to duties of excise, on or after the said day; and the goods declared by such section to be free of duty, or to be prohibited to be imported or exported, shall be held to have been and to be so freed from duty, or prohibited to be imported or exported.

*Fifteenth.* The acts now in force respecting customs and excise and all regulations lawfully made or to be made under them, and the meanings assigned to words and expressions used in them, shall apply to the duties imposed and to the provisions made by this act, in so far as they are consistent with it, and all acts inconsistent with it are hereby repealed.

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[Circular No. 357.]

CUSTOMS DEPARTMENT, OTTAWA, July 17, 1885.

SIR: Invoices of goods purchased in bond in the United States require to be accompanied by a certificate from the collector of customs at the port of export, certifying that the document is a correct extract from the invoice on file at his port, and giving date of import and export, marks and invoice value, and to such value there should be added the costs of freight transshipment and all other expenses and charges connected therewith, together with the probable profit of the United States importer; and in cases where invoices are not accompanied by such certificate, the value on which duty is to be collected shall be the value in the open market at time of shipment; and in all cases where doubt exists as to such value the usual course prescribed by the appraisement section of the customs act should be taken and applied to the case.

J. JOHNSON,  
Commissioner.



## CHINA.

*REPORT OF CONSUL SEYMOUR, CANTON, CHINA, ON THE EXTENSION OF AMERICAN COMMERCE IN CHINA AND THE EAST.*

Numerically British merchants have the advantage over all other foreign merchants and traders, and many of them are active young men who have had sound business training in Great Britain, and who came out to Asia measurably under the auspices of strong commercial establishments in England and Scotland, or established firms in the East having intimate connection with wealthy houses in Great Britain. In a majority of cases these British merchants in the East are so thoroughly identified with the interests of British commerce that they cannot be expected to favor the commerce of other countries.

Germans have been remarkably successful in Chinese ports in establishing commercial interests, which are vigilantly promoted by what seems to be something of the nature of co-operation, and by watchfulness on the part of consular officials, who keep the German Government and people of Germany informed of opportunities for extending trade between Germany and China.

To extend commerce in the East a country must be strongly represented in business circles. In November, 1884, I sent to the Department specimens of cotton drills manufactured in Europe and sold in China as American goods. There may be, and doubtless are, other commodities similarly treated. This fact alone shows that to effect sales there was an advantage in representing these European goods as American products.

The most effectual method or means of getting the full benefit of this favorable opinion in regard to American cotton goods is to have them sold by Americans, who will visit all the Chinese ports with merchandise, and the best means of doing this is by co-operation of half a dozen or more American firms, in as many branches of trade, in maintaining an American steamer of from 300 to 500 tons, stocked with goods for sale and delivery to the Chinese shop-keepers, traders, and compradore shops, where supplies are kept and sold of merchandise of American production, with a certainty that visits of this kind will be repeated quarterly or oftener, which would soon establish an understanding that goods will be as represented, and that these opportunities of buying them from first hands will insure the greatest possible margin of profit. By receiving fresh supplies of the goods thus sold from time to time, by steamships arriving at Yokohama or Hong-Kong, one very important point would be gained, viz, exemption from losses by perishable goods in large shipments.

One of the chief difficulties in regard to effecting sales of American commodities that are soon injured in tropical climates would thus be avoided. If a large consignment or shipment of hams, bacon, cheese, butter, canned goods, &c., is made to the East, there is certain to be a considerable percentage of loss, and the consumers are not certain whether these are fresh or old goods. That is one reason why the shop-keepers or dealers in family supplies in Canton and other ports on the Chinese coast are compelled to sell hams at 35 to 45 cents a pound; bacon at 35 to 40 cents a pound; cheese at 45 cents; butter at 60

cents; and many other perishable commodities at twice or three times their cost in America.

During the rainy season, too, cloths and similar merchandise become damaged by moisture and mildew in these Eastern countries.

There are many advantages to be derived from this direct and regular system of bringing American goods new and fresh to the dealers without the intervention of "outsiders." The cost of maintaining a steamship of the capacity suggested would be smaller than that of one capacious store in any port. Two experienced salesmen, with a careful "packer" to attend the cargo, would be needed.

It might be advantageous and profitable to secure at each port the assistance of an established Chinese compradore, of known reputation for prudence and fidelity, to have charge of all matters in relation to credits.

A hint as to the manner of doing mischief by "smart methods" in business among the Chinese should be noted. As a rule, a Chinaman engaged in business abhors surprises. He is disturbed, or loses confidence, if he discovers any tendency to smartness or overstraining in business. He will not be induced to buy goods from a flippant talker, and wants no jokes in business.. When he offers anything for sale he avoids praising it, and seems to have confidence in men who are of quiet manners, and have the appearance of calmness and sincerity.

CHARLES SEYMOUR,  
*Consul.*

UNITED STATES CONSULATE,  
*Canton, China, June 15, 1885.*

NOTE.—The London and China Telegraph, in its issue of September 12, 1885, notices the reports of the British consuls on developing trade with the East, which contain suggestions quite as applicable to American as to English shippers. Mr. Hughes (Shanghai) mentions the German trade with China, now "very considerable," which was built up by "trying the Chinese market with small shipments at first, finding out by this process the articles suitable to the wants of the people, and supplying them at low prices." Mr. Alabaster suggests "that models of the iron ware in use in China should be sent home, that our people may see whether they cannot produce better and cheaper articles by machinery; and they should at the same time send out qualified agents to show their own wares and stimulate the market. The difficulties to be got over are not so much prejudice and superstition, as to bring to the notice of the people articles which shall at once suit their purpose and their pockets. \* \* \* Needles, nails, screws, and matches, of course, we know have long been in demand; and it is suggested that a similar trade might be established in scissors 'if made so that they could be used as the natives use them, with the hand and not the fingers.'"

"And here again, in respect of piece goods, we find emphasized, in Mr. Oxenham's report on Chinkiang, a remark which is assuredly not novel, but whose repetition has produced singularly little fruit. It is that, 'for the import to be at all proportionate to the large market open, an article as soft, as durable, and nearly as cheap as native cottons must be made.' English cottons are too fragile, and American too dear, to suit the thrifty, practical Chinese peasant. They are worn as a luxury by those who can afford to indulge themselves; but the immense multitude engaged in every day out-door labor 'wear native Chinese cottons, which outwear three or four English fabrics.'"

## CONGO STATES.

### COMMUNICATION FROM MINISTER FISH.

Minister Fish, under date August 20, 1885, communicates the following extract from the Independence Belge of August 19, 1885:

The administrator-general of the state of the Congo has, if we believe the Havas agency, issued the following regulations:

"Various reasons render it temporarily necessary to subject to a prior permit the sale of needle-guns and breech-loading arms, as well as the sale of ammunition nec-

essary for the use of such arms. The exhibition, the sale, the purchase, and the carrying of the above-mentioned arms and ammunition throughout the territory of the state is subjected to a previous permission of the general administration. This permission will determine the conditions to be fulfilled by the vendors and purchasers. The present regulation which is of a temporary character, is made exclusively in the interest of public safety.

"F. DE WINTON,  
" *Administrator-General.*

"VIVI, July 1, 1885."

Moreover, the following regulations have been made known to the traders:

"I. A fine of 2,500 francs will be imposed on every person guilty of selling arms or ammunition to the natives, or who shall endeavor to bring arms into the independent state of the Congo without permission.

"II. A reward shall be given to every white man upon whose information evidence shall be obtained against any person guilty of the above-mentioned infraction, and a reward of 20 bales of merchandise, or an equivalent value, shall be given to every native or black employé upon whose testimony evidence may be obtained against any person who may have been guilty of the above-mentioned infraction.

"F. DE WINTON,  
" *Administrator-General.*

"VIVI, July 1, 1885."

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## COREA.

*REPORT BY ENSIGN FOULK, U. S. N., ON THE COAL BEDS OF COREA.*

Under date of July 5, 1885, Ensign Foulk, U. S. N., chargé d'affaires *ad interim*, informs the Department that—

A Corean gentleman who had been instructed as to methods of searching for coal-beds by an American merchant, has returned from a journey of inspection and reports having found large beds of coal near the sea-coast on the Ta-tong River, west coast of Corea. Several loads of the coal have arrived in junks at Chemulpho and taken on board the United States steamer Alert, proving to be of better quality than that of Japan, although that tested was but surface scrapings.

A second coal-bed has been discovered some 30 miles south of Chemulpho, on the coast. Steps are being taken to develop both these beds, an American to work the first and a Chinese company the second.

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## CUBA.

*REPORT BY CONSUL WILLIAMS ON THE CONSUMPTION OF TOILET SOAPS IN CUBA.*

*Toilet soaps.*—In response to instructions (July 2, 1885) Consul Williams, Havana, Cuba, sends the following report, under date August 26, 1885:

From information on this subject, furnished by one of the largest importing houses of toilet soaps in this city, it appears that there is a considerable consumption of such soaps in this city and island. The monthly sales in Havana are estimated to be about 3,000 dozen of fine soaps and 15,000 dozen of medium and ordinary classes, the prices of which range from \$1 to \$6 per dozen. The greatest proportion of fine toilet soaps is received from Paris. Only a small amount is received from the United States, principally tar and sulphur soaps, for which there is a limited demand; or from England, principally brown Windsor soap. It is stated that the soaps made in the United States and England are made in the cold process, which does not preserve the scent, and often discolors the water upon using them.

There are two soap factories in Havana which make toilet soaps, principally a kind called ox gall soap, but it has no acceptance and the demand is limited.



## EGYPT.

*REPORT BY VICE-CONSUL-GENERAL COMANOS, ON THE TRAFFIC OF THE SUEZ CANAL IN 1884-'85.*

### RECEIPTS IN 1884.

Following up the report on the traffic of the Suez Canal which Mr. Pomeroy transmitted to the State Department on the 19th of April, 1884, I now have the honor to inclose herewith tables, showing the entire maritime movement and operations of the canal during that year.

By examining these tables it will be remarked that the gross receipts of the canal company for the past year have slightly diminished when compared with those of the previous year, producing a total revenue of 65,622,306.78 francs in 1883, against 62,295,329.34 francs in 1884, a decrease of 3,326,977.44 francs.

### TRAFFIC AND REVENUE IN 1885.

I further remit an itemized report showing the transactions of the canal company for the first quarter of the current year, ending March 31, 1885, which will help to confirm the opinion that the business of the canal could not be expected to increase; for while the results of the operations for the year 1883 gave a surplus of about 5,000,000 francs compared with those of 1882, the opinions of competent persons were to the effect that there would eventually be a falling off in the business of this wonderful administration, which has probably reached the highest stage of development. By comparing the quarterly report of the current year with that of last year it will be easy to observe the decrease. For, whereas the gross receipts for the first quarter ending March 31, 1884, were nearly 18,000,000 francs, paid by the passage through the canal of 949 vessels, those for the first quarter of the current year, resulting from the traffic of 942 ships, produced the amount of 15,868,054.24 francs. In other words, the canal company realized for the first three months of this year some 2,150,000 francs less than for the corresponding period last year.

This diminution in the income, however, is chiefly attributable to the following circumstances:

First. An extra decrease of tax of 50 centimes on the net tonnage, which came into force on the 1st of January, 1885, and also the abolition of the exorbitant dues formerly charged for pilotage (equal to 6 per cent. of the gross receipts), which were abolished from July 1 of the year 1884. These modifications resulted in a payment of 9½ francs only on the net tonnage of the vessels, making a difference in favor of ship-owners of nearly 1,800,000 francs to the canal company in the first three months of last year as compared with those in the corresponding period of 1883.

It will therefore be seen from the statistics furnished that, although the tonnage was last year in excess of that for 1883, the receipts were less by 3,326,977.44 francs.

In this connection it may be necessary to say, with reference to the statement made by Mr. Pomeroy's dispatch touching the question of payment of an extra tax imposed upon ship-owners (subject to the convention signed on the 21st of February, 1876, between M. de Lesseps and

Col. Sir John Stokes, authorized by their respective Governments and the different maritime powers), that such impost was only "3 francs," making a total of 13 francs to be paid on the net tonnage instead of the 10 francs on the gross tonnage paid before the conclusion of such arrangement, and not "4 francs," as had been mentioned by an oversight apparently in the dispatch above referred to. This becomes evident from the fact that the aforesaid extra tax of 3 francs was discounted gradually by the diminution of the dues at the rate of 50 centimes in the years 1877, 1879, 1881, 1882, 1883, and 1884.

The second reason of the decrease in the canal revenue is owing to the undoubted fact that the traffic in itself has been reduced by nearly 28,000 tons, net register, during the first quarter of this year, which circumstance has been brought about by the outbreak of the French war at Tonquin, which has largely contributed in relaxing the brisk and perpetually growing trade between Europe and the far East. This incident is brought to light by comparing the table of the first quarter of last year, giving 949 as a total number of ships that passed the canal, representing a net tonnage of 1,649,663.661, with the table of the first quarter of year, showing 942 vessels making that transit, of a net tonnage of 1,621,949.803.

#### CANAL DIVIDENDS.

The dividends for the last few years have been as follows :

	Per cent.
1881 .....	13.7
1882 .....	16
1883 .....	17

The dividend for 1875, the first one that the company paid, was 7.5 per cent. The dividend for 1884 will be approximately 15 per cent.

To prevent misconception it should be added that the foregoing figures include the statutory interest of 5 per cent., which each share bears. The shares have not much improved in value during the past twelve months. They were quoted at 1,910 francs in January, 1884, and at 1,840 francs in December of the same year. Probably the prospects of a reduced dividend, and the feeling of disquietude as to the action of the ship-owners in England to the proposed second canal, contributed to this fall in market value. There was an arrangement concluded, with the approval of the English Government, for widening and repairing the present canal, by which a great additional outlay was necessitated, unaccompanied, as it will probably be, by an additional revenue. The political situation in Egypt also tended to keep down prices. A great rise, however, was remarked during the months of March and April last in the shares, which reached the high figure of 2,200 francs; but, in that time even, they fluctuated considerably. This sudden difference in the value is solely attributed to the speculations operated on the London Exchange and Paris Bourse. They are now quoted at 2,070 francs, a price which is still supposed to be somewhat above their normal value.

#### IMPROVEMENTS AND CONCESSIONS.

In the way of executed improvements the history of the operations of 1884 does not show much. In the "Little Bitter Lakes" the channel

has been widened from 22 meters to 40 meters. The revetement, or facing of the banks, generally with stone, has made progress. The curve leading from the north into Lake Timsah has been partially dredged away.

The canal company has, it must be owned, made some concessions to its customers. Besides the reduction of the tax on the tonnage to 9½ francs only, and the abolition of the pilotage dues, it has, from October 1, 1884, undertaken to float off stranded vessels at its own expense.

Some little progress has also been made in the way of constructing a new ship basin at Port Said, 750 meters long by 200 meters wide. Unfortunately the basin, which is intended for colliers discharging, has been placed, according to the opinion of practical persons, in about the most inconvenient position which could have been chosen.

Amongst the most remarkable events of the past twelve months was the visit of M. de Lesseps to England and the conclusion of the negotiations with the ship-owners. By the new arrangement the number of directors was raised from twenty-four to thirty-two, to admit a certain number of Englishmen to the board. Whether this compromise will really effect any substantial change in the working of the administration remains to be seen. There is reason to believe that the concession made is more apparent than real; but, after all, it must be remembered that the canal is a great French enterprise, and it cannot be wondered at that Frenchmen are striving to keep its "exploitation" in their own hands.

N. D. COMANOS,  
*Acting Consul-General.*

UNITED STATES CONSULATE-GENERAL,  
*Cairo, Egypt, May 31, 1885.*

*Canal traffic during the year 1884.*

Flag.	No. of vessels.	Net tonnage.	Gross tonnage.	Receipts.
				<i>Francs.</i>
British .....	2,474	4,466,930.430	6,311,533.810	47,129,812.86
French .....	300	567,874.260	829,398.578	6,159,493.92
Dutch .....	145	264,239.840	359,726.130	2,794,626.00
German .....	130	168,903.900	238,293.460	1,785,980.59
Austro-Hungarian .....	65	106,367.760	147,095.550	1,217,691.43
Italian .....	54	114,246.220	167,172.740	1,192,669.07
Spanish .....	46	96,351.495	137,632.100	1,042,821.14
Russian .....	17	29,616.390	46,786.620	357,809.10
Norwegian .....	18	24,235.730	33,008.680	255,110.81
Japanese .....	13	12,565.820	19,360.560	127,682.77
Belgian .....	5	7,161.560	9,798.900	74,317.60
American .....	4	5,498.220	8,230.940	58,576.67
Egyptian .....	4	2,748.220	4,417.440	39,754.20
Portuguese .....	4	2,823.700	4,613.400	36,736.82
Ottoman .....	4	1,758.560	2,563.240	20,444.58
Sarawak .....	1	178.820	305.210	1,801.78
Total .....	3,284	5,871,500.925	8,319,967.358	62,295,329.34

*Canal traffic during the fourth quarter 1884 and first quarter 1885.*

## FOURTH QUARTER 1884.

Flag.	No. of vessels.	Net tonnage.	Gross tonnage.	Receipts.
				<i>Francs.</i>
British .....	492	948, 886. 820	1, 345, 568. 440	9, 738, 255. 32
French .....	75	143, 209. 378	208, 030. 090	1, 535, 809. 57
Dutch .....	35	63, 327. 670	86, 133. 090	648, 897. 81
Austro-Hungarian .....	16	27, 834. 860	38, 484. 900	321, 854. 35
German .....	24	31, 865. 750	44, 924. 570	321, 577. 50
Spanish .....	10	20, 689. 400	29, 925. 570	217, 793. 31
Italian .....	10	19, 678. 390	28, 311. 340	198, 926. 24
Norwegian .....	4	5, 411. 280	7, 260. 580	54, 149. 31
Japanese .....	3	2, 640. 040	3, 912. 400	26, 499. 33
Belgian .....	2	2, 429. 880	3, 325. 430	24, 308. 80
Russian .....	1	1, 864. 690	3, 004. 020	19, 786. 90
Egyptian .....	1	1, 094. 940	1, 642. 680	16, 719. 40
Total .....	673	1, 268, 933. 098	1, 800, 523. 110	13, 124, 577. 84

## FIRST QUARTER 1885.

British .....	716	1, 765, 863. 380	1, 252, 901. 830	12, 125, 984. 21
French .....	75	202, 009. 633	136, 526. 593	1, 415, 177. 23
Dutch .....	40	97, 659. 440	71, 349. 700	693, 895. 07
Italian .....	30	63, 629. 260	42, 819. 780	448, 420. 19
German .....	32	62, 431. 670	44, 513. 060	424, 079. 83
Austro-Hungarian .....	19	45, 294. 590	63, 076. 286	344, 796. 56
Russian .....	8	18, 813. 460	11, 879. 230	134, 818. 07
Spanish .....	7	19, 607. 060	13, 811. 970	132, 787. 43
Norwegian .....	8	14, 186. 360	10, 400. 610	98, 829. 24
Swedish .....	2	3, 141. 140	2, 158. 720	20, 545. 43
Japanese .....	1	2, 157. 540	1, 453. 820	18, 871. 29
Belgian .....	1	1, 292. 220	945. 880	8, 995. 86
Portuguese .....	2	679. 130	376. 220	3, 591. 28
Ottoman .....	1	851. 500	236. 110	2, 263. 05
Total .....	942	2, 297, 116. 333	1, 621, 949. 809	15, 868, 054. 24

The following table indicates the proportion of gross tonnage and receipts during the first quarter of the following years, commencing from the year 1880, in connection with the maritime movement of the canal :

Year.	Gross tonnage.	Receipts.
		<i>Francs.</i>
1880 .....	1, 220, 061. 600	11, 155, 873. 11
1881 .....	1, 405, 959. 673	12, 480, 609. 84
1882 .....	1, 915, 930. 648	16, 247, 785. 73
1883 .....	1, 983, 577. 797	16, 181, 962. 80
1884 .....	2, 834, 318. 466	17, 996, 428. 64
1885 .....	2, 297, 116. 333	15, 868, 054. 24

## ECUADOR.

## REPORT BY CONSUL-GENERAL BEACH ON TRADE STATISTICS.

The anomalous system is followed at the custom-house at Guayaquil of collecting duties entirely by weight and measure, with little regard to value, and the cost of imported merchandise cannot be ascertained even approximately. As an illustration of the system practiced, calicoes and prints pay a certain duty per yard, the same whether the cost is 5 or 20 cents. The same duty per yard is exacted on woolen goods,

whether the cost is 50 cents or \$2. Liquors in bottles or casks pay the same duty by the dozen bottles or gallon, whether the cost is little or great. In regard to other articles the system works in the same manner, a low-cost article paying the same duty as a high-cost article of the same variety. For the reasons stated it is impossible to obtain in details or totals the value of merchandise imported from different countries into Ecuador, or the total value of such importations.

HORATIO N. BEACH,  
Consul-General.

FRANCE.

REPORT BY CONSUL DUFAIS ON THE FOREIGN COMMERCE OF FRANCE.

During the month of June, 1885, the importation has decreased 14,613,000 francs, compared with the corresponding month of 1884. The exportation, however, shows a small increase over the corresponding month last year of 5,676,000 francs. The following table gives the trade movement for each of the first six months of the last two years:

IMPORTATIONS.

Months.	1885.	1884.
	<i>Francs.</i>	<i>Francs.</i>
January .....	307, 950, 000	274, 629, 000
February .....	409, 448, 000	442, 424, 000
March .....	443, 222, 000	425, 952, 000
April .....	388, 117, 000	450, 505, 000
May .....	281, 661, 000	239, 200, 000
June.....	362, 664, 000	377, 277, 000

EXPORTATIONS.

January .....	156, 275, 000	160, 224, 000
February .....	233, 554, 000	235, 444, 000
March .....	343, 679, 000	306, 639, 000
April .....	325, 251, 000	342, 313, 000
May .....	235, 843, 000	209, 575, 000
June.....	273, 621, 000	267, 945, 000

Thus the importations for the first six months have lost 16,925,000 francs against last year, but the exportations show an excess of 46,083,000 francs.

The French Economist thus considers the foreign commerce of France, without being brilliant, as very favorable, at least more satisfactory than England's foreign trade.

The general figures during the first six months of the last two years are as follows :

IMPORTATIONS.

Description.	1885.	1884.
	<i>Francs.</i>	<i>Francs.</i>
Alimentary produce .....	663, 614, 000	667, 094, 000
Natural produce and raw material.....	1, 143, 439, 000	1, 143, 752, 000
Manufactured goods.....	295, 381, 000	307, 783, 000
Other merchandise.....	90, 628, 000	91, 358, 000
Total .....	2, 193, 062, 000	2, 209, 987, 000

## EXPORTATIONS.

Description.	1885.	1884.
	<i>Francs.</i>	<i>Francs.</i>
Alimentary produce .....	366,314,000	370,870,000
Natural produce and raw material.....	320,385,000	312,015,000
Manufactured goods .....	796,892,000	766,117,000
Other merchandise.....	81,602,000	73,108,000
<b>Total .....</b>	<b>1,568,223,000</b>	<b>1,522,110,000</b>

## IMPORTATIONS.

The result of this table shows that the importations of raw material remained stationary in 1884 and 1885; that the importations of manufactured articles lost this year 12,000,000 francs, and the importations of alimentary articles 3,480,000 francs. The importation of the latter shows some interesting facts; grain appears with 143,600,000 francs, against 140,000,000 last year, which is, however, far below the years when we wanted 394,000,000 for the first six months.

For wines the situation is better; whilst our export increases the import declines sensibly. For the first six months import amounted in 1885 to 172,000,000 francs, against 200,000,000 in 1884, and 218,000,000 in 1883. The import of sugar, molasses, coffee, meat, fat of all sorts, cod, cheese, shows a better result than in 1884. On the other hand, the importation of olive oil, rice, and cattle has decreased; the latter amounting to 59,000,000 of francs, against 68,000,000 in 1884.

The following table shows the import of raw material which has increased :

Articles.	1885.	1884.
	<i>Francs.</i>	<i>Francs.</i>
Wool .....	229,120,000	217,452,000
Cotton.....	126,417,000	124,624,000
Flax.....	42,100,000	39,090,000
Jute .....	9,639,000	4,396,000
Hides.....	99,014,000	92,672,000
Ornamental feathers.....	21,557,000	14,645,000
Oil seed .....	73,541,000	55,613,000
Palm and cocoanut oil .....	11,173,000	7,236,000
Tobacco .....	15,628,000	10,658,000
Dye woods.....	10,736,000	8,142,000
Petroleum .....	9,040,000	7,928,000
Copper .....	17,216,000	11,879,000
Indigo .....	20,987,000	19,141,000

On the other hand, the import of silk, which last year reached 136,000,000, is only 129,000,000 in 1885; the import of hemp decreased from 8,000,000 to 6,000,000, the import of guano from 24,000,000 to 4,963,000 francs; of oil-producing seeds, from 28,000,000 to 23,000,000; of timber, from 47,000,000 to 35,000,000; of coal, from 82,000,000 to 74,559,000 francs.

Of manufactured goods, the importation of the following shows an increase: Worsted thread, linen thread, matting, straw hats, and last silk goods (19,733,000 francs in 1884 and 20,370,000 in 1885).

The importation of the following manufactured goods, however, decreased: Worsted goods, linen and hemp goods, cotton goods, paper,



eather, machinery, tools and works of iron, furniture, wagons, and iron ships.

### EXPORTS.

Exports of manufactured goods increased 30,000,000 francs over 1884; of raw material, 8,000,000; only alimentary produce suffered a loss of 4,000,000 francs; wine increased from 126,000,000 to 147,000,000. On the other hand, butter fell from 50,000,000 in 1884 to 44,000,000 in 1885; fish and salt fish, from 12,000,000 to 9,000,000; native raw sugar from 14,000,000 in 1883 and 6,169,000 in 1884 to 805,000 francs in 1885; refined sugar, from 43,000,000 in 1883 to 31,000,000 in 1884 and 21,000,000 only in 1885.

In raw materials, greasy substances, palm-oil, saffron, hair, horses, mules, &c., have slightly increased. The re-exportation of cotton amounted to 15,000,000 in 1884 and 19,000,000 in 1885; wool showed an export of 53,000,000 in 1885 against 44,000,000 in 1884. Silk, on the contrary, decreased from 73,000,000 in 1884 to 53,000,000 in 1885; hides from 34,000,000 to 32,000,000.

The following table will show in which of our manufactured articles the export has increased:

Articles.	1885.	1884.
	<i>Francs.</i>	<i>Francs.</i>
Worsted goods .....	169,435,000	160,773,000
Linen goods .....	7,086,000	5,250,000
Cotton goods .....	50,093,000	38,533,000
Jute goods .....	1,251,000	1,000,000
Worsted thread .....	15,004,000	12,213,000
Linen thread .....	4,852,000	2,182,000
Cotton thread .....	1,137,000	970,000
Jute thread .....	1,205,000	440,000
Prepared hides .....	62,144,000	50,621,000
Leather and manufactures .....	63,462,000	58,584,000
Matting and straw hats .....	6,329,000	4,746,000
Watches and clocks .....	8,329,000	6,400,000
India-rubber goods .....	4,073,000	3,069,000
Furniture and wooden ware .....	14,300,000	10,388,000
Clothing, dresses, and linen .....	30,146,000	29,931,000

A good many articles give in 1885 the same results as in 1884; they are the basket trade, felt hats, woolen and silk hats, toys, paper, porcelain, glassware, perfumery, compounded medicines, candles, dye-wood extracts, cream of tartar, and objects of art; others show a decrease, like silk goods, which fell from 123,617,000 francs in 1884 to 122,225,000 in 1885; golden ware and jewelry from 39,000,000 in 1884 to 24,000,000 in 1885; machinery and mechanical objects from 15,000,000 in 1884 to 12,000,000 in 1885; articles of fashion from 15,000,000 in 1884 to 11,695,000 francs in 1885.

Chemical produce, musical instruments, manufactured tobacco, and colors also show a reduction of exports during the first six months of this year compared with 1884.

J. J. DUFAIS,  
*Consul.*

UNITED STATES CONSULATE,  
*Havre, August 11, 1885.*

## LYONS.

*REPORT BY CONSUL PEIXOTTO ON PRICES OF SILK AT LYONS.*

I inclose herewith a table showing the comparative prices of leading sorts of silk organzine, tram, and grège on the market place of Lyons for the period embracing eighteen years and four months—that is to say, from 1867 to the 30th of April, 1885.

The quotations represent the minimum and maximum prices. An examination will show that the prices of silk have never been as low as at present; the prices, in fact, to which silk has fallen, necessarily carrying with them those of cocoons, the raw material, has rendered the industry so unprofitable as to have caused many hundreds of raisers and manufacturers to abandon it. Prices of mulberry leaves, the essential food of the worm, have also so greatly declined that millions of trees have been uprooted and the soil planted with other and more profitable growths. This fact holds true not only for France, but Spain and many districts in Italy.

It is questionable whether but for the introduction of labor-saving machinery the once proud industry of silk would not be reduced to still inferior proportions. France at one time employed upwards of one million hands, and produced over \$100,000,000 of manufactured silk goods; scarcely more than half is the number and the sum of labor and product to-day.

Analyzing the prices given in the tables, it will be seen that one organzine silk of the first quality commanded in 1868 as high as 152 francs the kilogram, or \$29.33½; or, according to our method of calculations and purchase, more than \$13 per pound. The same silk can now be bought for even less than \$6 per pound. A grège silk, second quality, which cost in 1868 \$11.60 the pound, can now be purchased for about \$4.75.

The average production of silk which entered into the world's commerce from 1872 to 1882 was (counting all countries) 9,095,000 kilograms; the production has since decreased in all countries of the world.

The low prices of to-day are owing to the greatly diminished demand for silk dress goods and their being replaced by other tissues, principally those of wool and cotton, which have for several years back been in fashion and still continue in favor.

In this connection it may be interesting to notice the development and the amount of silk purchased and consumed by American manufacturers in the short space of eight years.

*Consumption of silk in the United States from 1875 to 1882.*

Year.	Quality.	Year.	Quality.
	<i>Bales.</i>		<i>Bales.</i>
1875.....	10,041	1879.....	18,926
1876.....	11,288	1880.....	20,899
1877.....	10,020	1881.....	21,682
1878.....	13,699	1882.....	21,889

It will thus be seen that the silk industry in the United States has more than doubled in eight years.



*Comparative table of the prices of silk during 18 years, from 1867 to 1884, and first 4 months of 1885, at Lyons.*

[These prices are in francs (a franc=19.30 cents) and per kilogram (a kilogram equivalent to 2 pounds 8 ounces and 4 drams). The quotations are the average maximum and minimum prices during the year.]

\* Four months.

BENJAMIN F. PEIXOTTO,  
*Consul.*

UNITED STATES CONSULATE,  
*Lyons, France, May 9, 1885.*

## GUATEMALA.

### REPORT BY CONSUL-GENERAL WHITEHOUSE ON THE CULTIVATION OF CINCHONA.

With a view to the feasibility of the introduction of the cinchona tree into some of our Southern States, I have the honor to submit the following report on the cultivation of the tree in this Republic :

Cinchona was first introduced into Guatemala about seven years ago, but the treatment not then being thoroughly understood only about 1,000 trees have reached maturity.

A sample of "succirubra" bark of one of these trees was analyzed in February last, and yielded a quinine of excellent quality and above the pharmacopical standard. A sister tree of the same age (seven years) was lately cut down and yielded 43 pounds of wet bark, which when dry will be about 15 pounds. These trees are growing at an elevation of 5,000 feet, and have occasionally been exposed to frost.

Cinchona is not tropical, although it may be called semi-tropical. In Southern India and Ceylon it is cultivated at elevations higher and colder than those on which coffee can be grown.

About two years ago the Government of Guatemala determined to introduce the cinchona on a large scale, and having secured the services of Mr. W. Forsyth, an experienced planter, sent him to India to procure fresh seeds. The seeds were obtained and planted in carefully-selected nurseries at elevations of from 4,000 to 5,000 feet above the sea, and close to the limit of the coffee zone, in the districts of San Marcos, Tumbador, Costacuca, Grande, Coban, Antigua, and Guatemala.

In these nurseries the following varieties of cinchona were sown: *succirubra*, *officinalis*, *condamenea*, *robusta*, and a little *calisaya*.

#### CULTIVATION.

Through the courtesy of Mr. Forsyth I am able to give the following information concerning the modes for raising the plant, which he has adopted in this country :

To raise the cinchona nurseries, the first thing was to select fully-ripe seed from matured trees and to sow as soon after as possible. The seeds are apt to deteriorate and die if kept for a long time, and particularly if exposed to the air. The ground in which the seed was grown was raised in the form of beds about 3 feet in width, 20 feet long, and the ends facing east and west. Over these beds cheap temporary roofs were made, sloping towards the south, the reason for this being that the plant when sprouting requires all the light of day, but not the rays of the sun, a very little of which will kill it when sprouting. The top dressing on which the seed was sown was brought from under the shade of forest trees, because more free from insect life and foreign seeds than earth taken from grass land. In some cases the seed was soaked in cold water three or four hours before sowing, but this is not necessary.

The seed was watered daily until well through the ground; then only more rarely, as required. From the seed-bed the seedlings, when 2 or 3 inches high, were planted out into extended nurseries, and shaded with ferns or small jungle twigs. This shade was gradually removed when the plants had formed new roots and were strong and hardy. When about 18 inches high they were permanently transferred to the plantation.

The plantation where the cinchona is to be cultivated must be cleared thoroughly. The plants are then lined, as in a coffee estate, 6 by 6 or 7 by 7 feet apart. The whole surface is weeded periodically, to prevent all foreign weeds from choking the young plants. As the trees get older this is done at longer intervals, and when they have attained sufficient height for the branches to shade the ground well may be almost discontinued.

#### GATHERING THE BARK.

There are several methods of harvesting the bark. The first is to cut the tree down to a stump and to take all the bark off. From the stump shoots will spring and grow to a full-sized tree again. The second is to take off small strips of bark from top to bottom, leaving as much bark on as is taken off. Immediately after stripping the bark off, the wound is covered with any material which will quite exclude light and air. A thick covering of grass is frequently used. The bark will under these conditions be renewed on the wound and become much richer in alkaloids than the original was. A third method is to scrape the outer surface of the bark quite off, leaving the under tissue intact. The alkaloids which contain the properties from which quinine is extracted are mostly secreted in the outer surface, so that in scraping the whole harvest of

alkaloids is collected. The inner half of bark protects the tree and enables the sap to circulate.

"*Succirubra cinchona*" returns a much larger yield in bark than any of the others except "*robusta*," but is not so rich in alkaloids.

The richest of all is "*legeriana calisaya*;" next come the other *calisayas*, "*officinalis*," &c.

As I have said above, the cinchona reaches maturity and produces at an age of six or seven years, and will then have attained a height of some 30 feet.

The yield of bark would of course depend on the method of harvesting and on many other causes. From 20 to 30 pounds, however, might be reckoned upon.

H. REMSEN WHITEHOUSE.

*Consul-General.*

CONSULATE-GENERAL OF THE UNITED STATES,  
*Guatemala, May 26, 1885.*

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## GERMANY.

### REPORT BY COMMERCIAL AGENT SMITH ON THE FACTORY INSPECTORS' WORK.

Under the laws and regulations of the German Empire governing the employment of workmen in factories, provision is made for the employment of factory inspectors, whose duty it is to devote themselves to the inspection of the factories of the Empire and the amelioration of the conditions under which its working classes labor, and to report annually to the Government at Berlin the result of their observations. These inspectors are expected to note the manner in which the factories of the Empire are conducted, the number of persons employed in them, the state of industry in general, the economical condition of the working classes, and the activity of the police officials in performing their duties with respect to factories; to give special attention to youthful laborers and the conditions under which they work and to the employment of women in factories; to report the number of cases of accident and their character, &c.; to make a statement, as far as possible, of all cases of illness occurring among factory operatives from factory influences unfavorable to health; to state all defects in the arrangement and administration of factories; to call attention to all model establishments that they may be patterned after; to set forth how the workingmen are nourished at home and in the factory, the prices of the necessaries of life, the wages received, the character of the habitations in which the workingmen and their families dwell; and, in fact, to treat of every subject which can interest or affect the workingmen. And they are empowered, whenever anything is discovered to be going on contrary to the laws and regulations of the Empire regarding workingmen, to take steps to have it remedied. Their annual report makes a publication of about 1,000 pages, and contains much interesting matter relating to the factory operatives of Germany, but is not so full in statistics as one would expect, and is largely taken up with an enumeration of cases of accident and their issue. The labor, in fact, imposed upon the inspectors is too great to be thoroughly well done, as there are but forty-six of them for the entire Empire, some of whom must visit three factories a day in order to make the round of their districts. But it can readily be seen that many facts of interest and importance can be noted by them, few as

they are in number, and many abuses and unfavorable conditions under which the workingmen labor discovered and corrected. For the Grand Duchy of Hesse-Darmstadt, in which this consular office is situated, there is one inspector, whose statements for the year 1884 respecting the factory operatives of the Duchy, it seems to me, are sufficiently interesting in certain particulars to be communicated.

#### INDUSTRIES.

The number of factories, foundries, mines, and salt works in Hesse-Darmstadt amounted at the close of the year 1884 to 1,190, employing 36,012 workmen. Of these 814 were driven by steam power, 249 run by hand labor, and 127 in other ways. The occupations engaged in were chiefly the production of foundry raw iron, syenite and granite, cement, agricultural implements, machines, sewing-machines, matches, palm oil, varnish, cloth, cotton and linen goods, cocoa matting, paper, wall-paper, leather, albums, books, and other goods in leather, saddlers' articles, wood carvings, pipes, sugar, chocolate, cigars, potato flour, shoes, cards, and playing-cards. Of cigar factories there were 98, employing 6,104 persons; of establishments for the manufacture of leather 22, employing 4,381 workmen; and of such places making saddlers' articles and leather goods 55 in Offenbach, employing 1,360 workmen. At what is termed "house industry" that is, doing work at home, making match-boxes out of wood shavings, 26 families were employed, consisting of 48 adult males and 62 adult females, assisted by a number of children of school age. The daily wages of the men at this work amounted to from 80 pfennigs (19 cents) to 1 mark (23 cents) each; of the females from 50 to 80 pfennigs (12 to 19 cents). About 36,500 of these boxes were made a day of the larger-sized boxes to contain 200 or 400 matches, and 56,000 of the smaller to hold 100 matches. The price paid for 1,000 large boxes was on the average 3 marks (71 cents) for the small,  $1\frac{1}{2}$  to  $1\frac{1}{4}$  marks (about 28 cents) a thousand. Another considerable house industry is at Russelheim, where about 50 women are employed cutting the hair from furriers' waste. In this work a woman generally makes from 1 to  $1\frac{1}{2}$  marks—at the highest 2 marks (23 to 47 cents)—a week, chiefly in winter.

The inspector visited 331 industrial establishments and consumed 122 days in journeying. Some 29 establishments were visited from two to four times. In 1883 it was chiefly factories in the large towns that were visited; in 1884 those in the country and in little places, so that the present remarks have more to do with the latter than with the former.

#### LABOR OF WOMEN AND CHILDREN IN FACTORIES.

In 537 factories 3,751 workers between the ages of 12 and 16 were employed, an increase of 852 over the number employed in 1883; of these children 2,101 were males and 1,650 females. They may be divided as follows:

Ages.	Males.	Females.	Total.
From 12 to 14 .....	82	69	151
From 14 to 16 .....	2,019	1,581	3,600

The increase was nearly all in the latter class.

The laws of the Empire forbid the employment of children under twelve years of age in the factories, but the inspector learned of three transgressions of the law in 2 factories. He reported that 6,790 females over sixteen years of age were employed in the establishments, an increase of 1,121 over the returns for 1883. In the district under inspection no women were employed on night work, but in two newly-established sugar factories a few are engaged in such labor. Quite a number of women are employed in the cigar factories, but the married women do not keep regularly to the hours of labor. These women have to attend to their household duties, and the time therefore is allowed them, which can be well done without any interruption of piece work. Quite a number of women also own little patches of ground, which they cultivate, and when the weather is fine and adapted to labor in the field they absent themselves from the factories and do garden work. Of males over sixteen years of age there were 25,471 at work, or 3,245 more than in 1883.

#### HOURS OF LABOR.

Most of the factories visited were worked 12 or more hours a day, as follows:

The hours of labor in 33 were from 10 to 11½ hours; in 136, 12 hours; in 8, 12½ hours; in 108, 13 hours; in 4, 13½ hours; in 3, 14 hours; in 3, 15 hours; in 4, 16 hours, and 22 indefinite.

By 12 hours of labor are meant from 6 a. m. to 6 p. m., or 7 to 7 o'clock; by 13 hours, from 6 to 7, and so on, without regard to pauses. The places working from 14 to 16 hours are for the most part those in which these hours of labor occur only at certain seasons of the year, such as brick-kilns, mills, breweries, &c. Among the factories visited 32 worked regularly at night. These were chiefly forges, sugar factories, chemical works, oil factories, cement factories, gas-works, and potato mills.

#### WAGES.

In the majority of the factories the workmen were paid every Saturday for the entire week; in 23 factories they were paid on Saturday for from Friday to Friday; in 7 on Saturday for the week ending Thursday, and in 17 on Saturday for the week ending Wednesday. Some 28 factories paid only every two weeks, and 9 monthly.

The weekly wages paid to experienced workmen, not apprentices or beginners, were as follows:

Occupation.	Men.	Women.	Occupation.	Men.	Women.
Cement factories .....	\$3 38	.....	Straw goods .....	\$3 12	\$1 64
Chemical works .....	3 20	\$1 64	Cigar factories .....	2 54	1 29
Match factories .....	3 00	1 44	Sugar factories .....	2 83	1 60
Paints, &c .....	3 92	.....	Shoe factories .....	4 16	2 33
Oil factories .....	3 28	.....	Boot-leg factories .....	3 52	2 38
Cloth factories .....	2 24	1 17	Cutters (hare's) hair .....	3 38	1 85

These wages are the average wages obtained from a number of establishments situated in different parts of the duchy; the wages given, for example, of workers in cigar factories being the average paid in 36 establishments.

#### ACCIDENTS, ETC.

The accidents which came to the knowledge of the inspector amounted to 201, of which 20 had a fatal result. They were distributed as follows: 69 in the mines, foundries, and salt-works; 28 in the preparation and

handling of foods and provisions; 22 in connection with the blasting and handling of rock and while working in earth; 16 in paper and leather factories; 15 in chemical establishments; 14 while working in metals; 11 at wood-work; 10 in the textile industries; 7 in manufacturing machinery; 5 in establishments for making illuminating effects, oils, fats, &c., and 2 in connection with the operation of agricultural machinery. These, he adds, are probably not all the cases which occurred, as the giving notice of accidents is not compulsory.

## HABITS OF WORKERS.

In a great many instances workmen have to go a long way to their work. In various places the workmen live an hour and a half away from the place where they labor, thus making three hours a day to be spent in going to and from work. When it is considered that, thus situated, coffee would seem to be the only warm thing they can get at midday, and that they wait until night for their chief meal, to be eaten upon their return home, their strength and endurance are to be wondered at, and their lot to be commiserated. To spend an hour and a half in trudging to the factory, to pass from twelve to fourteen hours in hard labor there, and then to devote another hour and a half to wearily stumbling home, is undoubtedly a strain upon the physical system which no one ought to be called upon to endure.

In some places there are many families of workingmen who possess a small patch of ground, a small dwelling-house, and cattle. The adult members of the family attend to the field work.

With respect to the general considerations given by the employers to the physical well-being of their employés, the inspector cites the following instances of considerate provision in behalf of the workmen:

One foundry and machine-manufacturing establishment at Michelstadt, in the Odenwald, has dwelling-houses, with gardens, for twelve families. These are rented in part for 40 marks (\$9.50) a year, and partly let free of rent.

A cement factory at Amöneburg has dwelling-houses for thirteen families, rented at moderate prices, and two houses for fifty unmarried workmen. These houses have from four to six beds in each room, and are provided with kitchens.

A chemical factory at Mourback, a small place not far from Mayence, has three workingmen's houses, with gardens attached, for eleven families. Rent, 5 to 10 marks (\$1.19 to \$2.38) monthly per family.

A straw-goods factory at Rhein, Dürkheim, has dwelling-houses for five families.

A factory at Pfeddersheim for making filtering apparatus and filtering-paper has dwellings for four work-masters.

A cloth factory at Lauterbach has dwellings, with grounds for three families.

A brick-kiln at Weinheim has dwellings, with gardens, for two families.

A chemical factory at Amöneburg has two houses for workmen.

A wire-drawing factory at Michelstadt has dwellings, with gardens, for two families.

Eighteen industrial establishments are provided with sleeping-places for workmen. One smelting-house has accommodations for one hundred and fifty men in ten buildings, which it rents. Another smeltery has sleeping-places for thirty men. One brewery has places for fifty men; a shoe factory, places for twenty; and a cement factory, places for forty.



In the last-mentioned case the workmen pay for their sleeping places, fire, and light, 5 pfennigs (about 1.2 cents) per day. Eleven factories are provided with workingmen's kitchens. One furnishes its men in the morning with coffee, and at noon with soup, one-third of a pound of meat, and pod vegetables, for 20 pfennigs (4.7 cents) a day. Another supplies the noon meal, with one-quarter of a pound of meat, for 35 pfennigs (8.3 cents). Eating-rooms were met with in six factories. One mentioned furnishes forty to fifty workmen at noon with soup, flesh, and vegetables, at 45 pfennigs (10.7 cents), and coffee, with a roll, for 12 pfennigs (2.8 cents.) The restaurant is a loss to the employers of the men to the amount of 1,500 marks (\$357) a year. In a chemical factory, where warm food, beer, and coffee are given at noon, 30 pfennigs (7.1 cents) are charged. In a sugar factory the midday meal is given for 25 pfennigs (6 cents). Twenty-one establishments possess rooms for eating and recreation purposes.

#### GRATUITIES AND FUNDS.

In a few factories, at certain seasons of the year, usually the 1st of January, gratuities are given to the workmen and workwomen. The amounts given are various. A certain chicory factory, for instance, at the end of the year gives from 30 to 70 marks (\$7.15 to \$16.66), while a cigar factory makes a present of from 3.50 to 17.50 only (83 cents to \$4.05) to regular workmen. A certain aniline factory makes a present of money every year to its employés, which is increased 5 marks (\$1.19) upon the expiration of each additional year of service. In some establishments secrecy as to what is received is enjoined upon the men, to prevent jealousies, &c., arising. It may be said to be a general custom for employers to make slight presents at the end of the year.

The following further cases of arrangement for the benefit of employés were met with :

A certain cigar and tobacco factory has a fund of 10,000 gulden (\$4,069) set apart for the benefit of wives of men who have been five years in its employ, and uses the interest of this sum in giving 30 marks (\$7.15) to each woman on being confined. Coal they get at wholesale prices. In the factory are thirty-five men who have been employed there more than 25 years—quite a record.

A certain smelting establishment has a registered co-operative society among its employés, conducted by the employers free of expense. Potatoes, bread, beer, brandy, shoes, clothes, and many other of the necessities of life are furnished by them.

A certain factory of aniline colors has arrangements for supplying warm and cold baths to its workmen. The latter receives from the factory clothes (factory) and wooden shoes. The works are visited weekly by a physician.

A certain cement factory has wash-rooms, bathing-places, and an apothecary for its men, with a bed and stretcher for the sick.

A certain chemical works has an aid society among its men, which affords support to them upon continued incapacity to labor, and, when old, pensions to the widows and children of laborers, and aid to workmen during a long illness. The workmen pay to the society 3 marks (70 cents) admission fee, and 10 pfennigs (2.3 cents) every fourteen days, to which their employers add 20 pfennigs (46 cents) every two weeks for each member. To the pension fund the employers pay 20 pfennigs every fourteen days for each member; but the members themselves pay nothing. The pension fund amounts to 20,298 marks (\$4,830) given since 1882 by the employers.

A leather factory during the year established an eating-place for its men, where at breakfast time and at the afternoon's lunch coffee and milk, and at dinner time strengthening soup, can be had. The same firm also contemplates the erection of a bread bakery for the benefit of its employes.

An establishment making shoddy goods, and employing 354 men, has a factory kitchen which supplies one-half liter of good soup, three times a week, with one-quarter of a pound of meat, for 12 pfennigs (2.8 cents), and one-half liter of good coffee for 3 pfennigs (.7 cents). The kitchen is patronized by about one-third of the men. The establishment has also a savings bank, which had at the end of 1884 some 163 depositors, whose united deposits amounted to 5,227 marks (\$1,244).

#### SAVINGS.

Opportunities to save and deposit their savings in reliable institutions are afforded to the workmen, by special arrangements for this end in factories, by 43 commercial and district savings banks, and by penny savings banks, which are numerous; but it is almost impossible to save anything out of the wages. To such a bank in a certain factory in this neighborhood, which employs about a thousand hands, the aggregate amount contributed weekly from among the whole number amounts, I am told, to from \$7 to \$9.50. The proprietors of this establishment receive all sums, from 4½ cents to \$2.38 weekly, which their workmen may desire to place with them, and guarantee upon all amounts deposited, not exceeding \$9.50, interest at the rate of 6 per cent. per annum; and upon all amounts above this sum and less than \$119 interest at 5 per cent. The money thus received is invested in the most reliable securities, and if the rate of interest promised is not realized from them the difference is made up by the owners of the factory. Various employers do this sort of thing.

For the protection of workmen and their families against the evil results which follow the loss of income from sickness or accident, acts have been enacted during the past two years under which the great mass of factory operatives and workmen of the empire have been compelled to form themselves into relief societies and make paltry contributions at stated periods to common funds, which are to insure them a certain measure of income when they become unable to work by long-continued illness or by accident, and to these funds employers are forced to contribute as much as the whole of their employes do. These acts meet with much favor among employers.

JAS. HENRY SMITH,  
*Commercial Agent.*

UNITED STATES COMMERCIAL AGENCY,  
*Mayence, July 27, 1885.*

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#### SAXONY.

##### REPORT BY CONSUL TANNER ON INDUSTRIES OF SAXONY.

Prior to the year 1867, the exportations from this district to the United States were not of sufficient importance to have a consular officer at this place. In 1867 a consulate was established here, the district embracing the manufacturing cities of Chemnitz, Annaberg, Glauchau, Plauen, Gornsdorf, Harlmannsdorf, Zwickau, Limbach, and nearly a dozen



other places of minor importance, remote and near, which sent their invoices to this place, and the value of whose exports was included in the business done at this consulate. The total value of the exports from this large district to the United States for 1876 was \$2,687,343.51. Four years ago Annaberg was made an indemnity consulate, and absorbed much of the business of the villages which was formerly done at this consulate. However, the value of declared exports has risen from this district to an astonishing extent. In 1884 the exportations from this district, including the agency of Glauchau, amounted to \$8,540,623.84, being six times the amount from the large district as established in 1867. The amount of declared exports from Annaberg to the United States in 1894 was \$1,598,765, so that now the combined value of the exports from this district, as originally established, would be \$10,139,388.84.

Out of a total of 155,955 adult male working people in the factories of Saxony, Chemnitz has 36,219; Plauen, 12,188; Zwickau, 22,999; Glauchau, 24,112; making a total of 95,518 for this consular district. The increase of 14,416 of working people in the mills in Saxony for 1884 took place chiefly in this consular district.

The condition also of the Chemnitz spinning industry is very satisfactory. Production has been increased, and though the off-take up to the close of the past year has not kept pace with the increase in the product, yet this was due to over-production, resulting from the stagnation in the demand for "Manchester yarns," and piece goods from the east of Asia. The consumption of Vigogne yarns in Germany expands rapidly. The consumption of the various cheap imitation fabrics which the German manufacturers produce from these yarns is increasing. The monster yarn-spinning mills have kept busy, which cannot be said of this branch of industry in other countries. The tendency of the fashion is now in favor of fabrics produced from worsted or combed wool yarns, and the mills of this district are so liberally supplied with orders that night-work is necessary. There is a new and increased demand in this district for silk gauze (for use in the manufacture of paper) for bank notes. This process is said to be very difficult, but very ingenious. The extremely fine threads are of various colors, and are arranged in a peculiar order, by which the expert is able to discover spurious notes by observing that the colors do not maintain the arrangement of the particular loom from which the genuine notes of the special series have been produced. A bell attached to the loom is automatically rung if one of the threads breaks. I am not sure that this industry is known or was invented in the United States. Large orders for these tissues are constantly being received here from foreign Governments.

The petroleum-lamp industry is one that I wish especially to call attention to in America, as I believe our manufacturers in this line might learn much to their advantage, and profit, by a study of German taste and style. These lamps are manufactured here, though Berlin is the principal manufacturing center, the value of lamps made at that place yearly being from 10,000,000 to 15,000,000 marks, only one-seventh of which are consumed in Germany. The remainder is for export, of which three-sevenths go to Russia, the same proportion to transatlantic countries, England, continental countries, and the East. The workmanship of these lamps is worthy of all praise, and their cheapness makes them of quick sale. I think that our manufactures in the United States would profit by a study of this subject, from lessons taught here by German workmen in this industry.

German curtain manufactory, which is chiefly located in Saxony, has

had a struggle for existence in competing with England, but the customs duties lately imposed has so stimulated this industry that now the imports of English curtain goods into Germany has not only been checked, but we find English curtains manufactured here in Chemnitz. In 1883 there were only five manufacturers of any extent; there are now twenty in activity, with some 200 frames in operation, each frame costing 20,000 marks. The average value of the daily production of a frame, working 22 hours, may be taken at 100 marks. Manufacturers are well employed, and this industry promises to be an important one for this city and Kingdom.

The dress, mantle, and cloak industry, which is one of great importance to Germany, is carried on extensively in this district, and is in a very flourishing and satisfactory condition.

Buyers from all parts of the globe come to this place, though Berlin is considered the market for this branch of trade. Technical education, which is so perfect in Germany, and which contributes so much to industrial superiority, gives the Germans an immense advantage in this branch of manufactory, a superiority that no people can hope to excel or even imitate that are deficient in this training. In order to meet the demands of a trade that has a radius of four or more thousands of miles in every direction, in which so many different styles or fashions prevail, a thorough knowledge must be possessed of the tastes, and a change of fashion must be even anticipated here, and manufactured in advance, so that now the manufacturers of this line of goods in Chemnitz are employed upon stuffs that will be worn in January or February of next year. In order to do this the mind must be constantly bent upon the business, and every energy brought to play. Fashion of course plays an important part in this industry, and fashion may commence with the manufacturer, and not at the shops as is oftentimes supposed. Indeed here in Chemnitz a manufacturer invents a certain pattern, and in doing so the manner the most advantageous for its make up is made and illustrated, just as we see illustrations of the various styles in the fashion cuts in magazines, &c. This style is adopted, and from this comes what we know as fashions. This is more particularly true of the worsted and cashmere goods manufactured here.

The clock and watch industry is one that I wish more particularly to call the attention to at home, as the high reputation that our manufacturers have enjoyed is in danger of being wrested from them by the Germans. The superiority of Americans in this industry lay chiefly in their fine machinery equipment, that enabled them to turn out the complicated machinery of a watch or clock with sameness, precision, and rapidity. The wide awake German was not long in finding this out, and adopting it. This has enabled Germany, not only to cease drawing on Switzerland, and to draw to a less extent on the United States, for her time-pieces, but she is actually sending clocks to both of these countries, one firm to my knowledge having an order from the United States amounting to 200,000 marks.

This is reversing matters in a way that is by no means flattering to those who occupied this industry at home, and I sincerely hope by calling attention to it to arouse and stimulate Americans to renewed efforts, as not only the home markets are threatened, but unless something is done we will be driven out of other markets that we have heretofore monopolized.

**THE PIANO INDUSTRY.**—That which I have just said about the watch is equally true of the piano industry. If there was any exportation of

pianos to the United States prior to the present time from Germany it came under the general head of "musical instruments."

American superiority in this line is well known, and we have been encouraged by orders from Europe; but Germany is coming to the front in this, and her pianos are even sent to the United States. Large orders are now on hand in Germany for these instruments, and our manufacturers had better look to their laurels. The loss of the home market means the loss of the export trade, and something must be done by those engaged in this industry in the United States or it will suffer.

The musical-instrument industry is carried on extensively in Saxony, and is an important one for this place. The exports in this line to the United States for 1884 show a considerable falling off, and in this as in almost every industry in this consular district the American demand controls the activity of the industry. Those engaged in this industry experienced relief from dull business by a general fall in the prices of all material used in the manufacture of these instruments. Brass and copper-plate fell 10 per cent.; lead and iron wire also fell. Persian beech, which is largely imported for this industry, fell from 22 marks per cent. in 1883 to 16 marks; and West India beech was also affected in price. The price of guitars fell 25 per cent. The American demand for zitherns also fell off greatly for the past year, and in consequence there was a decrease in prices. Mandolins, heretofore made only in Italy and France, are now manufactured at the large works at Markenkirchen, and are exported not only to Italy but to France and South America. Fine violins were in steady demand all the year round, and continue to be to the present time from Europe, the United States, and Australia, the prices varying from 9 to 30 marks, the cheaper Schonback goods selling at 36 to 54 marks per dozen. Manufacturers have in a great measure abandoned the making of wind instruments. In accordeons, which are sent to all parts of the world, and specially to England for her colonies, there is a steady business at good prices.

**THE BOOT AND SHOE INDUSTRY.**—German manufacturers have put forth more than their ordinary energy in this branch of industry. Large factories have been founded that turn out very good goods, but not equal to the American in any respect, though they have not spared money to procure the best machinery, and some of the most prominent manufacturers sent agents to America to study the trade in all its phases. One large manufacturer (Edward Lingel, of Erfurt) has a complete equipment of American machinery, and runs his factory on the American plan, and the Germans, successful in so many other fields of enterprise, say that in a short time they will send boots and shoes both to the United States and to England. Judging from the marvelous success and enterprise that is characterizing the German people at present this threat may be realized.

**THE POWDER INDUSTRY.**—It is well known that Germany excels in the manufacture of what is called chocolate powder, so called from its rich brown color. Vain efforts have often been made in Russia and France to discover the constituents of this powder, which is extensively exported. There is such a demand for this powder in Russia that the German manufacturers have enlarged their works, and the price of the stock has risen more than a hundred per cent.

GEORGE C. TANNER,  
*Consul.*

UNITED STATES CONSULATE,  
*Chemnitz, August 12, 1885.*

## REPORT ON THREE YEARS' IMPORTS INTO HAMBURG.

[Transmitted by Consul Tanner.]

The statistical office of Hamburg sends the following return of the imports into that port during the years 1882-'84, together with a classification of the vessels which entered Hamburg:

From—	1882.	1883.	1884.
	<i>Marks.</i>	<i>Marks.</i>	<i>Marks.</i>
Ports on the other side of the Cape of Good Hope and Cape Horn .....	93, 119, 000	113, 116, 000	108, 971, 000
South America (east and north coasts), West Indies,* west coast of Africa and ports of Africa and Asia in the Mediterranean Sea.....	112, 724, 000	112, 113, 000	125, 747, 000
North America (east coast).....	114, 139, 000	125, 124, 000	129, 146, 000
	819, 982, 000	350, 853, 000	363, 864, 000
Direct from places in Europe: *			
Great Britain and Ireland.....	432, 136, 000	454, 045, 000	441, 123, 000
France, Belgium, and the Netherlands.....	91, 834, 000	98, 491, 000	102, 806, 000
South Europe .....	27, 935, 000	38, 221, 000	55, 976, 000
North Europe.....	36, 187, 000	38, 159, 000	45, 053, 000
Direct seawards.....	908, 074, 000	979, 269, 000	1, 008, 822, 000
By way of Altona*.....	62, 153, 000	57, 605, 000	57, 660, 000
	970, 227, 000	1, 036, 874, 000	1, 066, 482, 000
Imports by land and river .....	1, 114, 631, 000	1, 191, 341, 000	1, 163, 485, 000
Total .....	2, 084, 858, 000	2, 228, 215, 000	2, 229, 967, 000
Imports of the precious metals .....	49, 435, 000	36, 553, 000	74, 094, 000
Weights of seaward imports in amounts of 100 kilograms net .....	26, 941, 000	29, 873, 000	33, 197, 000
Weights of, by way of Altona, in amounts of 100 kilograms net.....	1, 550, 000	1, 666, 000	1, 907, 000
Weights of, by land and river, in amounts of 100 kilograms net .....	31, 618, 000	33, 332, 000	32, 913, 000

\* It should be stated that the goods imports from places in Europe comprehend only the quantity and value of goods transported direct to Hamburg.

*Annual average.*

Years.	Weights in amounts of 100 kilograms net.	Value (exclusive of ready money).
		<i>Marks.</i>
1846 to 1850 .....	10, 309, 000	409, 182, 000
1851 to 1855 .....	14, 232, 000	587, 040, 000
1856 to 1860 .....	17, 723, 000	753, 303, 000
1861 to 1865 .....	20, 968, 000	894, 831, 000
1866 to 1870 .....	26, 120, 000	1, 098, 270, 000
1871 to 1875 .....	35, 867, 000	1, 670, 438, 000
1876 to 1880 .....	47, 893, 000	1, 785, 233, 000
1882.....	60, 109, 000	2, 084, 858, 000
1883.....	64, 871, 000	2, 208, 215, 000
1884.....	68, 017, 000	2, 229, 967, 000

*Sea vessels arrived at Hamburg.*

Years.	Ships.	Total tons register.	From countries out of Europe.	Steamships.	Sailing vessels.
Annual average:					
1821 to 1830 .....	2, 284	193, 614	200	36	2, 248
1831 to 1840 .....	2, 657	260, 458	301	239	2, 418
1841 to 1850 .....	3, 613	427, 323	362	368	3, 245
1851 to 1860 .....	4, 649	756, 099	461	929	3, 720
1861 to 1870 .....	5, 092	1, 260, 675	509	1, 713	3, 879
1871 to 1875 .....	5, 421	2, 013, 480	796	2, 628	2, 793
1876 to 1880 .....	5, 582	2, 399, 029	867	3, 080	2, 502
1882 .....	6, 189	3, 030, 909	1, 033	3, 604	2, 585
1883 .....	6, 852	3, 351, 670	1, 133	3, 939	2, 413
1884 .....	6, 844	3, 727, 724	1, 146	4, 287	2, 557

*Sea vessels arrived at Hamburg—Continued.*

Years.	Ships.	Total tons register.	From countries out of Europe.	Steamships.	Sailing vessels.
<b>Arrived at Altona:</b>					
1882 .....	537	98, 126	30	97	460
1883 .....	585	138, 810	38	120	465
1884 .....	653	189, 533	34	189	464
<b>Arrived at Hamburg:</b>					
1882 .....	387	46, 784	47	.....	387
1883 .....	329	36, 353	40	12	317
1884 .....	387	46, 986	36	35	352
<b>Tons register.....</b>		<b>3, 032, 649</b>		<b>695, 075</b>	

*REPORT BY CONSUL TANNER ON PLAYING-CARD INDUSTRY.*

## PLAYING CARDS.

A recently printed official return, containing a review of the card industry in Germany for the year ending July, 1885, gives the number of playing-card manufactories to be sixty-one, the annual production from which amounts to 3,598,912 packs of 36 cards or less to the pack, and 1,286,239 packs of more than 36 cards to the pack, making a total production of 4,885,151 packs, as compared with 4,517,864 manufactured in the previous year. The greater part of this production was consumed in Germany itself, the export being 236,863 packs in 1883 and 1,070,131, in 1884. That there was a large importation is shown by the fact that a tax was collected upon nearly 6,000,000 packs in 1884. The increase in consumption in the latter year as compared with 1883 was 18 per cent. Nine thousand workingmen are employed in this industry throughout the Empire, all receiving abundant work, with a prospect of an increase in pay. New manufactories are likely to be built. With a little effort American manufacturers might participate in this rapidly-growing market for playing cards.

GEO. C. TANNER,  
Consul.

UNITED STATES CONSULATE,  
Chemnitz, September 3, 1885.

## AIX-LA-CHAPELLE.

*REPORT BY CONSUL LINCOLN ON COMPARATIVE PRICES OF THE PRINCIPAL ARTICLES OF FOOD, ETC., IN GERMANY.*

I submit herewith some figures illustrating the difference in price of the principal articles of food and necessities of life within the limits of the German Empire. The same are taken from an article appearing in the Cologne Gazette of the 21st of July, written to show that the statement to the effect that "distances no longer exist and that railway communication equalizes prices" is not borne out by facts.

GEORGE F. LINCOLN,  
Consul.

UNITED STATES CONSULATE,  
Aix-la-Chapelle, July 22, 1885.



Differences of price in the case of provisions and the necessaries of life at different points within the German Empire.

[Prices in dollars per 1,000 kilograms or 1 net ton.]

Names of towns.	Articles.	Value.	Names of towns.	Articles.	Value.
Dantzic, Breslau, Stralsund	Wheat .....	\$37 84	Trier (Treves).....	Wheat.....	\$52 12
Posen .....	Rye .....	31 42	Trier (Treves).....	Rye .....	43 55
Frankfort on the Oder....	Barley.....	29 99	Aix-la-Chapelle.....	Barley .....	43 55
Stralsund.....	Oats .....	32 13	Coblenz .....	Oats .....	38 79
Dantzic.....	Peas .....	36 89	Aix-la-Chapelle.....	Peas.....	68 07
Breslau.....	Beans .....	44 27	Kiel .....	Beans .....	78 54
Halle .....	Lentils.....	54 74	Aix-la-Chapelle.....	Lentils .....	110 67
Posen .....	Potatoes.....	7 50	Aix-la-Chapelle.....	Potatoes.....	16 42
Dantzic, Cöslin .....	Straw .....	7 14	Aix-la-Chapelle.....	Straw .....	13 33
Königsberg.....	Hay .....	9 52	Aix-la-Chapelle.....	Hay .....	17 14

[Prices in cents per kilogram or 2 pounds.]

Görlitz .....	Beef .....	\$0 22	Aix-la-Chapelle.....	Beef .....	\$0 37
Dantzic, Osnabrück .....	Pork (fresh) ..	25	Aix-la-Chapelle.....	Pork (fresh) ..	32
Cöslin .....	Veal .....	18	Aix-la-Chapelle.....	Veal .....	39
Stralsund.....	Mutton.....	21	Aix-la-Chapelle.....	Mutton .....	39
Neuss, Halle.....	Salt pork .....	83	Bromberg, Stettin .....	Salt pork .....	39
Cöslin .....	Table butter..	40	Aix-la-Chapelle.....	Table butter..	62
Cöslin .....	Wheat flour, first quality.	06	Hanau.....	Wheat flour, first quality.	11
Frankfort on the Oder....	Rye flour, first quality.	05	Berlin ... ..	Rye flour, first quality.	09

MUNICH.

REPORT BY CONSUL HARPER ON THREE YEARS' IRON PRICES.

According to returns collected by a Rhenish smelting firm the following have been the iron prices in the German market during the last three years :

Articles.	1882-'83.	1883-'84.	1884-'85.
Rolled iron.....	\$32 13	\$28 32	\$25 94
Iron shot of all kinds.....	18 57	12 88	9 53
Wrought-iron chips .....	11 42	10 71	9 53
Pig-iron (ordinary and quality) .....	12 61	10 95	10 23

These prices show a serious decline, especially for finished manufactures.

JOSEPH W. HARPER,  
Consul.

UNITED STATES CONSULATE,  
Munich, September 3, 1885.

COLOGNE.

REPORT BY CONSUL WARNER ON THE SALT WORKS AT STASSFURT.

For many years the saline beds in Northern Germany have been yielding immense supplies of rock salt, and as large quantities of the products of this salt are annually imported into the United States for agri-

cultural purposes, some statistical information on their production may not fail to be of interest, especially to that class of American agriculturists who use the quality called kainite (the hydrated chloride of potassium and sulphate of magnesia.)

The raw potash salt contains on an average the following ingredients: Chloride of potassium, 16.8 per cent.; chloride of magnesium, 26.5 per cent.; chloride of sodium, sulphate of magnesia, 11.6 per cent.; chloride of calcium, 0.4 per cent.; insoluble matter, 0.8 per cent.; and water, 30.3 per cent.

The importance of these beds has been constantly increasing during the last twenty-five years by discoveries of other almost inexhaustible supplies of potash salts in and around the cities of Stassfurt and Ashersleben. These two places are within a few miles of Magdeburg, the capital city of the rich province of Saxony, in the Kingdom of Prussia.

Besides the great value of these salts for manuring purposes, kainite taking the lead on account of its being in a condition directly applicable to the soil, and its cheapness in comparison with any other artificially prepared fertilizers, they are largely used in the various chemical industries for the manufacture of chloride of potassium, sulphates of potash and soda, preparations of magnesium, potash, &c.

The following statistics, published by the German Imperial Government, will convey some idea of the growing importance of these beds. The Stassfurt and Ashersleben saline beds produced, in the following years :

Years.	Rock salt.	Potash salt.
	<i>Owt.</i>	<i>Owt.</i>
1864.....	1, 620, 094	2, 336, 791
1870.....	2, 258, 581	5, 837, 857
1874.....	3, 237, 411	8, 591, 219
1880.....	5, 445, 403	13, 361, 841
1884.....	6, 895, 960	19, 383, 820

The figures show that while the production of rock salt within the period of twenty years has quadrupled the increase of potash salts has been ninefold. The salt works now in the immense basin are, Stassfurt, opened in 1857, the Leopoldhall, opened in 1862, the Consolidated Alkaline Salt Works, in Westeregeln, opened in 1875, the Salt-rock mines, New Stassfurt in Loderberg, near Stassfurt, opened in 1877, the Potash mines, Ashersleben, opened in 1883, and the Salt mines Ludwig II, opened in 1884. The official statement of their product in five years, prepared by Dr. Frank and Mr. R. Besser, the director of the salt mines in New Stassfurt is as follows :

Years.	Karnallite.	Kainite.	Kieserite.	Boracite.
	<i>Owt.</i>	<i>Owt.</i>	<i>Owt.</i>	<i>Owt.</i>
1880.....	10, 564, 239. 0	2, 755, 915. 0	17, 857. 0	2, 073. 0
1881.....	14, 894, 521. 0	3, 106, 031. 0	41, 638. 0	2, 256. 5
1882.....	21, 185, 995. 5	2, 895, 154. 0	93, 162. 0	2, 513. 5
1883.....	19, 004, 064. 0	4, 532, 005. 0	97, 004. 0	4, 102. 5
1884.....	14, 799, 179. 6	4, 060, 087. 0	274, 777. 0	3, 182. 3

These figures show that the greatest yield of karnallite was in 1882, and the largest yield of kieserite was in the year 1884.

With these salts occur also various other qualities, namely, polyhalite,

kragsite, reichardite, as trakainite, tachlydrite, sylvine, and biscofite, which, however, technically are of less value. The salt which, on account of its chemical composition, is principally used for agricultural purposes in combination with nitrogenous substances and phosphates is kainite. Of this salt the works of the New Stassfurt produced during the above-mentioned five years the greatest quantity, namely, 8,506,409 cwt., while the salt-works at Old Stassfurt produced 7,286,510, and those at New Ashersleben 1,548,916 cwt.

During the years of 1881 to 1884 the sales of kainite by the New Stassfurt salt-works for agricultural purposes in Germany amounted to 1,548,916 cwt., and for exportation to other countries 4,314,131 cwt., while 998,589 cwt. were sold for industrial purposes.

WM. D. WARNER,  
*Consul.*

UNITED STATES CONSULATE,  
*Cologne, August 14, 1885.*

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#### GERMAN PATENT LAW.

Commercial-Agent Smith, Mayence, writes, under date May 23, 1885:

The workings of the German patent law are not at all satisfactory or conducive to the interests of American patentees. The statute is very explicit in its provisions, and American inventors and patentees have the right, if they comply with its terms, to ask that the law be carried out; but I am sorry to say that it is almost impossible to get infringements punished, or even taken notice of. The law provides that the district attorney where the infringer resides shall criminally prosecute on information furnished, but as patents and patent rights are surrounded by a multitude of technicalities the district attorney almost invariably refuses to proceed, or pigeon-holes the complaint. The lawyers say that he is obliged to carry out the provisions of the statute, but the general experience of patentees is that he does not do so; hence the infringer is bold and openly defies the law, and the public conclude that the law can be broken with impunity.

This question of the protection of the rights of American patentees and manufacturers of patented articles is an important one and well worthy of consideration. Year by year the policy of the German Government becomes more protective and the duties imposed upon imported goods higher and higher. In manufactured articles it is with our inventions that we have the best opportunity of creating and holding markets in Germany, and it behooves the American people to see to it that they share in the advantages which the world at large reaps from their skill and ingenuity.

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#### AMERICAN PETROLEUM IN GERMANY.

In directing attention to the heavy decrease in the importation of refined mineral oil into Austria in the first quarter of 1885, as compared with the importations in the corresponding period of 1884, Consul Jussen, Vienna, writes (June 24, 1885) that it is "undoubtedly owing, in part at least, to the fact that petroleum produced in Galicia (Austrian Poland) is sold in American petroleum barrels, and that the American



petroleum brands and labels are largely counterfeited." While the imports of refined petroleum decreased in the quarter of 1885 more than 20 per cent., as compared with the imports of 1884, the trade in raw mineral oils increased nearly 30 per cent.

CREFELD.

REPORT BY CONSUL POTTER ON EXPORTS FROM CREFELD TO THE UNITED STATES

Under date of June 30, 1885, Consul Potter makes the following statement showing the total value of goods exported from the United States consular district of Crefeld to the United States during the year ending December 31, 1884, and for the four preceding years :

	1880.	1881.	1882.	1883.	1884.
	<i>Marks.</i>	<i>Marks.</i>	<i>Marks.</i>	<i>Marks.</i>	<i>Marks.</i>
Velvet and plush .....	5, 157, 469	6, 571, 670	11, 456, 117	10, 811, 850	13, 968, 632
Silk goods .....	728, 290	783, 299	672, 596	1, 019, 052	962, 313
Silk and cotton-mixed goods .....	6, 074, 324	4, 819, 664	5, 116, 316	3, 776, 235	3, 321, 200
Button stuffs .....	58, 918	64, 271	45, 156	48, 830	97, 362
Ribbons of silk and half silk .....	645, 261	185, 343	198, 104	94, 983	59, 156
Ribbons of velvet.....	3, 648	3, 390	114, 719	1, 016, 447	417, 029
Total.....	12, 667, 910	12, 427, 637	17, 603, 008	16, 767, 397	18, 825, 692

GREAT BRITAIN.

REPORTS BY CONSUL LANE ON THE POTTERY INDUSTRY.

The relative trade of Great Britain with the United States and with other countries will perhaps be more truly indicated by a table comparing the exports during the last calendar year with the annual averages for certain previous periods, distinguishing, on account of its special relation to this consular district, pottery from the total exports of domestic produce, and designating also the proper ratio of increase or decrease.

I have at hand the figures for this purpose except as noted below. The following table will suffice for this purpose :

Total exports (British and Irish produce).

Whither.	1884.	Averages per annum.		
		1880-'84.	1875-'84.	1870-'84.
To all countries.....	\$1, 133, 542, 044	\$1, 140, 004, 930	\$1, 060, 243, 058	\$1, 087, 594, 390
To United States .....	*129, 337, 145	141, 685, 539	115, 591, 541	130, 630, 214

POTTERY ONLY.

To all countries.....	8, 934, 524	10, 460, 342	9, 553, 747	9, 644, 944
To United States .....	3, 308, 645	4, 184, 779	3, 575, 539	3, 554, 559

\* Partially estimated.

The following shows the percentage of excess or deficiency of exports for 1884, as compared with the annual averages for five, ten, and fifteen years respectively, as above designated :

Whither.	More or less than annual average for 1884.					
	Five years, 1880-'84.		Ten years, 1875-'84.		Fifteen years, 1870-'84.	
	Increase.	Decrease.	Increase.	Decrease.	Increase.	Decrease.
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
TOTAL EXPORTS.						
To all countries, \$1,133,542,044.....	0. 56	6. 91	.....	4. 22	.....	.....
To United States, \$129,337,145 .....		8. 71	11. 89	.....	.....	0. 99
POTTERY ONLY.						
To all countries, \$8,934,524 .....		14. 58	.....	6. 48	.....	7. 84
To United States, \$3,308,645 .....		20. 92	.....	7. 57	.....	6. 92

The percentage of total British exports to all countries of domestic produce sent to the United States in 1884 was 11.41.

Taking the total exports to the United States for 1884, as above estimated, we find the figures about 5 per cent. less favorable than the total to all countries for the same period, inasmuch as they fall below the annual average for fifteen years about 1 per cent., while the total export to all countries are a little more than 4 per cent. above that average.

As to the pottery alone, however, the same test shows the share of the United States to be well maintained, as before stated. To all countries the exports in 1884 were nearly 8 per cent. below the yearly average for fifteen years, while to the United States only they were less than 7 per cent. below that average. Yet there is, perhaps, no district in England where the diminishing value of exports to the United States is more lamented, and, perhaps, more keenly felt than in this one, although the decrease has been already shown to be considerably greater in other leading articles of British manufacture and produce. But this would be readily understood if we could place the changes in the *volume* in juxtaposition with those in the *value* of pottery exports; but this there are no means of doing with a sufficient approach to accuracy to be of much usefulness.

We may note, however, as having some bearing on a change of prices, a subject which I have thought it best to go into at some length in this report, a comparison of values for a few calendar years, in connection with the number of packages shipped to the United States from Liverpool, during the same periods. The figures for the latter are unofficial and are not given as having a statistical importance.

The following table represents the value of the exports of earthenware and china from Great Britain to the United States for each year since and including 1869, and also the number of packages shipped from Liverpool to the United States during the same periods:\*

Year.	Exports to the United States.	Number of packages shipped from Liverpool to the United States.	Year.	Exports to the United States.	Number of packages shipped from Liverpool to the United States.
1869 .....	\$3, 643, 772	104, 954	1877 .....	\$3, 029, 703	69, 951
1870 .....	3, 451, 292	97, 220	1878 .....	2, 844, 231	64, 461
1871 .....	3, 701, 635	103, 669	1879 .....	3, 320, 888	75, 701
1872 .....	4, 093, 889	104, 185	1880 .....	4, 398, 639	99, 977
1873 .....	3, 370, 572	77, 528	1881 .....	4, 219, 578	93, 032
1874 .....	2, 878, 369	65, 164	1882 .....	4, 359, 936	98, 502
1875 .....	3, 018, 632	66, 209	1883 .....	4, 652, 345	107, 322
1876 .....	2, 643, 585	60, 193	1884 .....	3, 308, 645	75, 797

\* The figures showing shipments from Liverpool are taken from shippers' circulars issued by a leading Liverpool firm.

The foregoing table I fear will convey little meaning without some further elucidation. It will be noticed that the year 1884 when compared with each year from 1869 to 1872, inclusive, shows a considerably greater loss in quantities (so far as packages indicate them) than in values, indicating that the prices had been well maintained. The year 1873 appears almost on a level with the one just closed; there having been in 1884 a simple shortage of 2 per cent. as against the former period in both values and number of packages shipped from Liverpool to the United States.\*

From 1874 to 1878, inclusive, we have a period of five years consecutively falling behind 1884, and in an approximately equivalent ratio as between quantities and values. And 1879 again is so near an equilibrium with 1884 in both respects as to render comparative figures with that year unworthy of notice. Dealing, however, with the years 1880, 1881, and 1882, we find the conditions of ten years before materially changed, and that the consignments of 1884 fell away in value from the shipments for those years considerably more than in the number of packages, thus pointing to a great decline in prices in the last five years, which is no doubt exactly what has occurred. From 1883 to 1884 the fall was almost uniform both in packages and prices, but the fall from 1882 to 1884 was much greater in prices than in packages, thus indicating that prices were severely cut down immediately after the close of 1882, the difference between the ratio of decrease in quantity and value being nominal only as between 1883 and 1884. Still it cannot be denied that a comparison of 1884 with 1869—the earliest year under consideration—shows a larger decrease in quantity than in value; indicating, in turn, that prices had increased as between the earlier period and the present time—an erroneous conclusion.

The simple explanation lies in the fact that the average quality (in the sense of expensiveness) of the goods now sent to the United States is far in advance of the exports at that time. If the present shipments were reduced to the average grade of the exports in 1869 they would show a reduced value of at least 25 per cent., and thus demonstrate that we were buying goods much cheaper, instead of showing, as they now do, that we are buying *better goods* than in 1869. It is my belief that we are not only buying better goods, but that we are buying all kinds of crockery much cheaper than in 1869, or any other year previous to 1883.

#### METHOD OF PRICING POTTERY.

It is important, both in the interest of the revenue and the retail purchaser, otherwise the consumer, that the system of pricing pottery should be well understood. The duty on it under the United States tariff is more than half its wholesale value, and it enters largely into the essentials of comfort in every household. Being so largely destructible, it is a constant item of domestic or family expenditure. Yet the system of fixing prices to these goods is a mystery to all but those engaged in the trade, or who have had occasion for other reasons to investigate the subject. There is no doubt that more or less secrecy and peculiarities of reckoning intervene in most trades at different stages between the producer and the consumer, but the system of pricing pottery is, I think, more profoundly perplexing and more studiously kept so, than that concerning most other articles.

As to staple goods, indeed, the matter of pricing might as well be termed a matter of classifying. If a novice should decide to embark in the staple crockery business it may be supposed that he would send for price-lists. If he got them in their usual form they would afford him

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\* It must be understood that the reported shipments from Liverpool do not cover the total exports to the United States, but they probably include 90 per cent. of the total.

many puzzle exercises. When he had learned that he must deal with a scale in this matter of which the price of a 10-inch plate was the key, he would be able in due time to collect sufficient data to ask, for example, the lowest terms for 50 dozen white granite London teas. The answer might read "W.G. Uns., 57½—5—5." We may assume that he will soon understand that the figures used in common parlance as indicating prices really mean the percentages which are *taken off* the prices as an inducement for the purchaser to purchase. But another complication soon besets him. The goods are classified into "bests," "seconds," and "thirds," and "unselected." It is safe to say that nine out of ten of the expected customers cannot tell the difference between a "best" and a "third" concerning a dinner plate, and how many "firsts" are entered as "thirds" and sold in turn to consumers as "firsts" is probably one of those troublesome questions which will never find its true answer.

And so it is that while prices as between manufacturers and wholesale dealers are expressed in the language of discounts, the prices as between the retailer and the consumer is in the common sense equivalent of a certain sum for a certain thing.

#### CLASSIFICATION.

From the foregoing it will be apparent that the wholesale prices may be changed by changing the standard of quality in classifying the goods (called the selection), as well as by changing the discounts, the discounts of course being largest on "thirds" and least on "bests"; the actual prices fixed by the "scale" being the same on all the grades, and uniform for staple goods throughout all the manufactories. It must be remembered also that the price-lists used for the American trade are generally arranged for that trade only, each country having more or less peculiarities in the requirements of its market. Formerly all white granite ware was divided for the United States, as before stated, into "bests," "seconds," and "thirds"; the proportions of each grade varying, of course, according to the general quality of the contents of the kiln, success in firing, and numerous other conditions attending the process of manufacture. In more recent years, however, the system has largely obtained of lumping the "best" and "second" under a separate grade called "unselected."

#### EXPORTS TO THE UNITED STATES.

The following analysis of prices and discounts, intended to afford a comparison between 1869, when this consulate was established, and the year 1882-'83, is the result of a careful examination and calculations made therefrom of several thousand invoices certified here during the years mentioned.

The number of invoices certified at this consulate in the calendar year 1869 was 3,555, which number is about 500 in excess of the average for the sixteen years ended December 31, 1884.

The following table shows the years and numbers:

Years.	No. of invoices.	Years.	No. of invoices.
1869.....	5,555	1879.....	2,714
1870.....	3,071	1880.....	3,315
1871.....	3,562	1881.....	3,574
1872.....	3,323	1882.....	4,140
1873.....	2,558	1883.....	4,028
1874.....	2,293	1884.....	3,174
1875.....	2,484		
1876.....	2,324	Total .....	48,972
1877.....	2,503	Average per annum .....	3,061
1878.....	2,354		

In the matter of values the earlier records of this consulate are somewhat incomplete, those for 1872 being the oldest available for accurate tabulation.

The following statement shows the declared value of the exports from the district to the United States for that and subsequent years:

Years.	Value.	Years.	Value.
1872.....	\$4, 195, 531 41	1880 .....	\$3, 790, 171 68
1873.....	3, 646, 601 99	1881 .....	3, 586, 440 99
1874.....	2, 990, 261 46	1882.....	3, 757, 588 90
1875.....	2, 748 415 22	1883.....	3, 870, 860 29
1876.....	2, 484, 881 70	1884 .....	2, 734, 507 95
1877.....	2, 618, 098 93		
1878.....	2, 463, 397 15	Total .....	41, 802, 581 27
1879.....	2, 915, 823 60	Average per annum .....	3, 215, 583 18

The number of invoices certified is not a very safe criterion for estimating the quantity of goods actually shipped, yet the fact that while the value represented by such invoices certified in 1884 is less by \$1,461,023, or 35 per cent., than the value for 1872, and less by \$481,075, or 15 per cent., than the average annual value for the thirteen years, the number of invoices themselves certified in 1884, less by 149 only, or 4 per cent., than the number certified in 1872, and larger by 113 than the average for the sixteen years, is certainly a strong indication of a fall in prices, an indication rendered almost conclusive when it is remembered that the character of the goods invoiced has advanced in average quality during the period mentioned.

But the year 1882 is a more fairly representative one for the purpose of this comparison than 1883 or 1884. The business of 1883 was largely of a feverish and spasmodic character in consequence of the increased tariff which went into operation in the middle of that year, and which had inspired a large speculative but not natural demand for three months prior thereto, and 1884 in turn is not altogether representative, owing not only to the general and somewhat sudden depression but to the overstocking in 1883, at the time and for the cause already mentioned. But comparing 1882 with 1872, two years fairly alike in the conditions affecting trade, we find that 3,323 invoices in the earlier period represented a cost of \$4,195,531.41 while 4,140 invoices in 1882 covered a value only of \$3,757,588.90.

That is to say, 3,323 invoices in 1872 represented more value by \$437,942.51, than 4,140 invoices represented in 1882. In 1872, the average amount covered by the invoices certified at this consulate was \$1,232.48. In 1882 the like average was \$907.68, or a decrease in the average of \$324.80, or 26 per cent. A falling off, still keeping in view the improved average quality of the goods, which it would be very difficult to explain except by a falling off in prices as represented by an increase in discounts. I think we may safely assume that the cost of earthenware to the American trade has been materially reduced in the last fifteen years. The cost of production has, in the mean time, increased. Large profits have disappeared.

#### WAGES OF LABOR.

The annual export of three or four millions of pottery to the United States does not mean the prosperity to this district that it did fifteen years ago. That the work people are great sufferers does not follow,



for wages have not been reduced. In some branches they are higher. I am told that skilled labor costs considerable more than it did fifteen or twenty years ago. As an example of the increase in the cost of this element in the production of pottery, I am told by a manufacturer that jugs for which the thrower formerly received 11*d.* for 20 dozen, now cost 2*s.* and 4*d.* for 20 dozen. While there has been an increase in the cost of labor, it has been compensated in some measure by improved machinery and appliances of various kinds and more systematic management; but the manufacturer before mentioned estimates that there has been a net increase in the cost of production of earthenware of from 15 to 20 per cent.

TRADE DISCOUNTS.

The invoices show with slight exceptions a considerable increase in the trade discounts on earthenware from 1869 to 1882-'83, and the consequent diminution in the wholesale price.

Table showing the average trade discounts on earthenware and china exported from the Staffordshire potteries to the United States in 1869 and 1882-'83, respectively, with increase or decrease.

Class of goods.	Average discount.		Increase.	Decrease.
	1869.	1882-'83.		
	Per cent.	Per cent.	Per cent.	Per cent.
Decorated ware, china, majolica, tiles, ornaments, &c.....	7	13	.....	6
C. C. ware .....	33	33	.....	.....
White granite bests .....	45	42	3	.....
White granite seconds .....	52	68	.....	16
White granite unselected * .....	.....	60	.....	.....
White granite thirds .....	62	74	.....	12

\* This classification was not in general use in 1869, and a fair average for that year cannot be made.

It is essential, however, to the true value of the foregoing statement to supplement it with another showing the ratio which the value of each class bears to the aggregate value in the respective periods chosen for this comparison. A careful and laborious grouping and analysis of the files of the office belonging to the respective periods enable me to make with approximate accuracy the following statement of the relative proportions in value of the different kinds of goods shipped from here to the United States in 1869 and in 1882-'83, respectively :

Table showing the rates to total of each class of earthenware and china exported from the Tunstall district to the United States in 1869 and 1882-'83 respectively, distinguished as in the preceding table.

Class of goods.	Percentage of aggregate value.	
	1869.	1882-'83.
Decorated ware, china } Majolica, tiles, ornaments, &c. }	12	40
C. C. (common ware) .....	8	8
White granite bests .....	50	2
White granite seconds .....	10	5
White granite unselected .....	Not classed.	40
White granite thirds .....	20	5
Total .....	100	100

## PRICES.

I may add here that a similar examination of the invoices certified in 1884, or even 1883 by itself, might possibly reveal still further reductions in manufacturers' prices, but in view of the extreme depression which prevailed throughout 1884 and a portion of 1883 I should not have deemed it so reliable had I based my calculations on the sales of those years. I have therefore deemed it more accurate to use the figures already compiled for the years 1882-'83. I have taken the average of discounts on white granite "unselected" invoices since the beginning of the present year and find the average still only a trifle over 60 per cent. This class, as shown in the table, embraces 40 per cent. of all the pottery now sent from here to the United States, and 77 per cent. of all the white granite so exported.

A movement has within the last month been made among a few manufacturers to add  $2\frac{1}{2}$  per cent. to the usual discount on these goods (white granite, unselected), making it, for instance, 60—5—5 instead of  $57\frac{1}{2}$ —5—5. It is quite probable that this change will be general, and, if so, other goods will be sure to follow in a similar ratio, and an invoice of goods amounting net, for instance, to \$100 will then be offered to the American importer for \$94.12. Should these reductions in price long continue a revision of the foregoing analysis would be requisite.

The foregoing analysis for 1869 and 1882-'83 shows, first, that, with the exception of C. C., or "common" ware, and white granite bests, there has been a marked decrease since 1869 in prices paid by the American importers. These exceptions together amounted to only 10 per cent. in value of the exports to the United States in 1882-'83. Of this amount 8 per cent. shows no increase, so that only 2 per cent. of our importations of these goods in 1882-'83 shows an increased cost, and in the present instance this may truthfully be taken as an exception that "proves the rule." This will be readily understood when the "exception" is fully explained. But as against this 2 per cent. we have 90 per cent. of the goods sold to the American buyers yielding prices from 5 to 40 per cent. below those of 1869. Why the C. C. ware has not followed the downward tendency I am not fully prepared to say at this moment, but the fact may be mentioned that its quality has no doubt been greatly improved. But the decrease in the white granite bests, although now only 2 per cent. of the United States importation from this district is worth an explanation. In 1869 there was practically no such grade of goods in the trade as unselected. This is an assorting or rather a mixing of more recent date, and is supposed to include what were formerly bests and seconds. It will be noticed that, while in 1869 white granite bests comprised 50 per cent. of the goods under consideration, in 1882-'83 their relative value to the total had fallen to 2 per cent. If we couple with this change the kindred one, although in the opposite direction, that white granite unselected, which were practically unknown in 1869, amounted to 40 per cent. of the total in the later period, the matter very nearly explains itself. There is a withdrawal from invoicing of practically all the white granite bests, or one-half of the total, so classed in 1869, and on which the average discount was only 45 per cent., and the substitution of a nearly equal proportion (40 per cent.) of white granite "unselected," on which the discount in 1882-'83 averaged 60 per cent. It will not be amiss to exhibit the various features of this analysis in a single statement based upon a hypothetical invoice. I have prepared the following for this purpose.



*Gross values, discounts, and net cost of each class of goods in an invoice amounting to \$100 gross value in 1869 and 1882-'83, respectively, according to the average selections and discounts in each period, with the rate of increase or decrease in gross value, net cost, and price per item in each class.*

Class of goods.	1869.			1882-'83.			Increase or decrease per cent. in quantity purchased, net cost, and price per item.*		
	Gross value.	Dis-count.	Net cost.	Gross value.	Dis-count.	Net cost.	Quantity purchased.	Net cost.	Price per item.
Decorated ware, China, majolica, tiles, ornaments, &c .....	\$12 00	P. ct. 7	\$11 16	\$40 00	P. ct. 13	\$34 80	P. ct. +223	P. ct. +212	P. c. -6
C. C. ....	8 00	33	5 36	8 00	33	5 36	-----	-----	-----
White granite, bests....	50 00	45	27 50	2 00	42	1 16	-96	-96	+5
White granite, seconds..	10 00	52	4 80	5 00	68	1 60	-50	-46	-33
White granite, unselected.....	-----	-----	-----	40 00	60	16 00	-----	-----	-----
White granite, thirds...	20 00	62	7 60	5 00	74	1 30	-75	-82	-32
Total .....	100 00	-----	56 42	100 00	-----	60 22	-----	-----	-----

\* + indicates increase; - indicates decrease.

## PRICES AND QUALITIES.

The foregoing table is intended to exhibit at a glance the changes in both the character and cost of the goods imported into the United States from this district; but one feature since 1869 of it may possibly be misleading if the explanation is not pointed out. An invoice amounting in gross price to \$100 is the supposed basis of all the figures relating to the respective periods. It will be seen that the sample invoice of 1869 costs net less than the one for 1882-'83, \$3.80 or 6 per cent., which represents the 7 per cent. increase in the net cost of an average \$100 purchase. A moment's examination, however, will show that the apparent keeping up of prices grows entirely out of the already mentioned increased trade in the more expensive lines of goods coming under the head of "decorated ware, china," &c. In this class, although its proportion is steadily increasing, a well-defined system of subdivision is difficult. We can say generally that it embraces most goods which are more or less ornamental, but which vary so much in matter of design and decoration that no "scale" price can be applied to them. It includes all china and earthenware highly decorated, majolica, parian figures, decorated tiles, and other goods of a special character, which it is already seen are encroaching in ratio upon the staple trade in standard goods. The discount on these goods is not what is known as a trade discount, but the schedule or list prices are supposed to be net, from which the deductions are "cash discounts" only, although it appears that the "cash discounts" go up in dull times along with the trade discounts. It must be said, however, that in this decorated department there are many articles of great value, the cost of which is not affected by the discount question at all. This is true of finely painted or very artistically modeled pieces to which the artistic work gives the chief if not the entire market value. In this class of articles discounts are not subject to much change, and are only kept up through a trade custom of the country, nor can the gross (or actual) prices of such goods be made so inflexible as in the cheaper ware. To illustrate: Having, since my sojourn here, received a commission to order from a

well known firm a decorated dinner service, the character and design of which were quite clearly outlined to me, I found that a definite estimate could not be furnished unless I designated the name of the artist who should paint the fish and dessert plates, the matter of difference in cost in respect of this matter varying in the ratio of six to ten.

If, therefore, we wish to notice independently the real changes in the cost of ordinary staple goods, such as the majority of our people are compelled to pay for from year to year, we must again drop the decorated or miscellaneous classification and arrange, as in the last table, the figures pertaining to white granite only (C. C. showing no change may be omitted). The invoice, as before, is supposed to amount to \$100 gross.

The table is as follows and includes—

*White granite only.*

Class of goods.	1869.			1882-'83.			Quantity pur- chased.	Net cost.	Price per item.
	Gross value.	Dis- count.	Net cost.	Gross value.	Dis- count.	Net cost.			
		<i>P. ct.</i>			<i>P. ct.</i>		<i>P. ct.</i>	<i>P. ct.</i>	<i>P. ct.</i>
Bests.....	\$64 00	45	\$35 20	\$41 00	42	\$23 78	—94	—93	+ 5
Seconds.....	12 00	52	5 96	9 50	68	3 04	—21	—47	—33
Thirds.....	24 00	62	9 12	9 50	74	2 47	—60	—73	—32
Unselected.....				77 00	60	30 80			
Totals.....	100 00			100 00					

In summarizing these figures it appears that if the United States im-  
porters selected the same goods and in the same proportions as in 1869,  
they would get them for less than they cost at that time by the follow-  
ing percentages :

Decorated ware, &c., 6 per cent.\* white granite bests (none un-  
selected) 27 per cent. ; white granite seconds 33 per cent. ; white granite  
thirds 82 per cent.

INCREASED COST OF PRODUCTION.

But inasmuch as the reduction in manufacturers' profits is one of the  
interesting features of this inquiry we must deal also with the increased  
cost of production. I am fully confident that I am within the mark in  
placing this increase at 15 per cent. above what it was in 1869. Basing  
our conclusions then on the estimates as to cost of labor, &c., already  
mentioned, as well as on a careful study of the matter from other  
standpoints, and with all these figures before us, what has been the  
actual reduction in the English manufacturers' profits on goods sent to  
the American markets? A strictly mathematical solution might re-  
quire as one of its bases the percentage of profits which the net prices  
covered in the first instance or the actual cost of production in the re-  
spective years now under comparison. These useful data are not at  
hand, but we can perhaps reach some useful conclusions without them.

\* In this class of goods 6 per cent. does not represent the true decrease, it being  
largely made up of those articles in which a reduction is made in the net or schedule  
price and largely of such articles as are not in any scale of prices, but are priced in-  
dividually according to cost of production, &c.

For example, an invoice of white seconds, which in 1869 might have cost net \$100, costs \$67 now. Unless we conclude that the manufacturers are selling their goods at a loss, this excess of 50 per cent. over present cost which the importer then paid was a moiety only of the profits realized in 1869. But a 15 per cent. increase in the cost of production of this \$100 worth in 1869, or \$67 worth in 1882-'83, must be taken as adding a similar ratio to that portion of the \$100 purchase or former price which ought to be set down to profits. That is to say, 15 per cent. added to 50 per cent. already ascertained gives 65 per cent., which we may safely take as the minimum of profits on the sort that is staple goods in 1869. How much above this they were cannot be told until we see how much further they can be reduced, supposing always that no considerable quantity will be sold at a loss, that the cost of production will not be diminished, and that the goods are honestly classified, graded, and valued in the invoices. The first of these possible exceptions involves too much improbability to be considered seriously, and the last is the only one of the remainder not too speculative for practical treatment, and in this I refer only to the theory or possibility of undervaluations.

#### UNDERVALUATION.

On this point I wish to record my belief that generally the exports from this district have been and are now honestly valued. In this opinion I was supported by that of an American manufacturer who visited the potteries some two years ago, and who expressed the opinion that any gains accruing in this way to the manufacturers or dealers had been greater when the percentage "of undisguised profits," so to speak, were themselves much larger than at present. Since I took charge of this consulate I think there have been very few instances where the invoice prices, as declared here, have been raised by the appraisers at the United States custom-houses; and in some cases, where undervaluation or unfair classification has been suspected, inquiry has established the good faith of the manufacturer.

It must be admitted that the present system of classification renders it more difficult for customs officers to detect undervaluations which are due to dishonest "selections" than it was under the old system of bests, seconds, and thirds, but a careful summary does not disclose any palpable scheme of smuggling on this account. The bests, which were sold at a low discount, have been, as already shown, virtually wiped out, but the seconds, which, in 1869, amounted to 10 per cent. only of the exports to the United States, have also fallen in proportion one-half, although the discount has risen from 52 to 68 per cent., and the thirds have fallen in quantity (as reckoned by value) from 20 to 5 per cent. of the total, and discount has been increased from 62 to 74 per cent., bringing us at least to the definite conclusion that all the bests, which were formerly one-half of the total, have been thrown into hotchpot with one-half the seconds and three fourths of the thirds, which formerly aggregated a little less than one-third of the total. That this readjustment covers a great fall in net prices has already been shown, but it does not impeach the fairness of the present invoicing under the new system.

EDWARD E. LANE,  
*Consul.*

UNITED STATES CONSULATE,  
*Tunstall, May 14, 1885.*

*REPORT ON THE EXPORTS TO THE UNITED STATES.*

The depression in the potteries, which may now be said to have completed its second year, is indicated in the meager increase of \$22,263.71 in the second quarter of this year over the very low quarter ended June 30, 1884. As this increase almost unaided makes up an increase of \$23,041.63 for the year over the previous year, it may possibly forecast a continued improvement. But in this connection we cannot overlook the fact that for the first half of the present calendar year there has been a decrease of \$31,168.50 from the corresponding period in 1884.

As usual pottery embraces almost 99 per cent. of the total exports from this district to the United States, and about one-half the remaining 1 per cent. consists of colors and other pottery materials. The actual figures for the quarters of exports of pottery only from this district to the United States are \$718,476.43, and for the first six months of the year \$1,334,019.39. The total exports of British manufactures of earthenware, china, parian, and porcelain to all countries for the six months ended the 30th ultimo amounted in value to \$4,099,286 against \$4,358,121 for the first half of the preceding, a decrease of \$258,835, or 5.93 per cent. To the United States only the figures are, for the first half of 1884, \$1,603,715, and for the corresponding portion of 1885, \$1,577,311, a decrease of \$26,405, or 1.64 per cent. only, thus showing a continuance of one of the trade conditions of the English pottery industry, viz., that the export trade still comes nearer holding its own with the United States than with other countries. The figures further reveal that of the total exports of British pottery to the United States for the half year just closed this district furnished 85 per cent., being 1 per cent. above the ratio for the calendar year 1884. Also, that for the same half year the United States took 38 per cent. of the total exports of pottery from this country, as against 37 per cent. during the corresponding fraction of 1884.

This brief analytical summary shows the unmistakably embarrassed condition of the pottery industry of Great Britain, and also the relative importance which the United States still holds as an outlet for the products of that industry. The current board of trade returns, from which I collate some of the foregoing figures, do not give the imports of pottery for the half year under consideration, nor even for the complete calendar year of 1884. The last period for which the statistics of such importations are available is for the calendar year 1883, and these were given in my last annual report. For that year they amounted to \$2,936,495, which was a slight increase over the previous year, and an increase of 13 per cent. over the average for the five years ending with 1883. This, of course, is a steady inroad upon the home trade, which, coupled with trade depression generally, makes itself materially felt in this district.

## FACTORY ACTS.

There are, no doubt, many English potters, as well as other manufacturers, who believe that England has excessively handicapped some of her own industries by legislating freely for the direct improvement and protection of the artisan and working classes, while their continental neighbors make the most of longer hours of labor, cheaper modes of living (this seems a surprising, but is doubtless a just reason to write), the greater employment of children, and the general absence of factory laws such as endeavor to protect and guard the English workman and his family in their relations with their employers.

Some of the first and leading advocates of the prevailing trade policy of England believe that the purely industrial features of this factory legislation, at least so far as adult labor is concerned, ought to be left out of legislation altogether. This would impair the chief virtues of the coal mines regulation act, the employers' liability act, and other legislation to which the English workman owes some of his comfort and security, and perhaps I ought to add, his enjoyment and independence. The great numbers of his class now just enfranchised will make what he has, at least, secure forever. They will ask for more and probably get it, but whether entirely upon the same lines which their friends in Parliament have followed heretofore—and which we may perhaps properly define as direct legislation—or otherwise, is a question now seemingly in process of evolution.

#### PRICES.

In prices of commodities there has been a continued reduction, in many industries, from the low figures then prevailing. Several leading establishments have increased the discounts on white granite "unselected" ware from 55 per cent. 5 per cent., 5 per cent. to 57½ per cent., 5 per cent., 5 per cent., which equals a net decrease of 5½ per cent. Other goods, while not specifically named, of course will go down in sympathy, so to speak, with the possible exception of the higher grades of artistic and decorative work. An effort, however, is now being made to jump back, but it is uncertain to what extent it will be possible in these times to raise prices once dropped.

EDWARD E. LANE,  
*Consul.*

UNITED STATES CONSULATE,  
*Tunstall, July 20, 1885.*

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## GREECE.

### REPORT OF CONSUL REILEY ON TRADE USAGES.

#### CREDITS.

Owing to the condition of great commercial depression which has been prevailing here for so long a time, and of which I spoke in a previous report, goods are almost always bought on credit, cases of cash payment being very rare. The general term of credit given is from three to four months, while with some goods it amounts to as much as eight months. Retail credit is generally indefinite.

#### DISCOUNTS.

With regard to discounts allowed in consideration of cash payment there is no fixed rate, and in this country has almost always to be decided by bargaining.

The discounts granted, however, generally range from between 2 and 5 per cent. In retail business it is not customary to give discounts. These discounts vary in all kinds of goods and are generally regarded as gratuity to the buyer for his benefit. With regard to merchants purchasing for themselves or shipping merchandise to order and for account of others, there is nothing definite. The customary charge of



commissions for purchasing and shipping goods ranges from 2 to 10 per cent., 5 per cent. being the most usual.

#### BROKERAGE AND COMMISSIONS.\*

The usual brokerage on the sale of merchandise is from 2 to 5 per cent., 3 per cent. being the most usual, and for the sale of merchandise the same figures may apply. This brokerage is paid equally by buyer and seller.

Shipping merchandise all over the Levant is always attended with great expense.

#### GREEK EXPORT DUTIES.

I append a list of the export duties of Greece which I think may be of some use to the Department in this respect :

Articles.	Duty.	Articles.	Duty.
Olive seed.....per oke..	\$0 04	Live animals :	
Broken glass.....do....	12	Sheep.....per head..	\$0 06
Rags.....do....	04	Donkeys.....do....	14
Oil.....do....	09	Cattle.....do....	30
Oil (from Sparta).....do....	24	Hogs.....do....	40
Firewood.....do....	04		<i>Per cent.</i>
Soaps.....do....	01	Small silver pieces.....	12
Acorns.....per 121 pounds..	24	Oil (in barrels).....	18
Plaster of Paris.....do....	1 00	Wine.....	6
Tobacco.....per oke..	24	Currants.....	18
Tobacco (Argolis).....do....	14	Butter.....	10
Dry figs.....per 121 pounds..	30	Hides.....	12
Dry figs (from Sparta).....per oke..	30	Wax.....	10
Brooms.....do....	24	Wool.....	10
		Honey.....	10
		Cheese.....	10

The above list comprises all of the more important export duties, those omitted being merely local burdens ; all other articles are exported free.

#### INTERIOR FREIGHT CHARGES.

With regard to the customary expenses incurred in transporting merchandise from the interior to a place where it can be shipped, I can speak only for Greece, knowing nothing of the interior development of the neighboring countries. Greece is as yet an undeveloped country, there being scarcely any railroads, and even these carry no freight. All merchandise is brought into Athens from the interior on the backs of donkeys. On every day at a certain hour troops of donkeys may be seen coming into the market laden with olives, grapes, &c. The undeveloped condition of the country compels these beasts to pass over places where there are no roads, and thus it is practically impossible to bring goods from the interior in any other way.

This mode of traffic, for several reasons, would not be profitable for any foreign merchant.

The Greek Government offers no bounties whatever on articles exported.

DEWITT T. REILEY,  
*Consul.*

UNITED STATES CONSULATE,  
*Athens, May 2, 1885.*

\* This does not include the export duty or any other charges of that character.

**HAWAIIAN ISLANDS.**

Consul Merrill (July 30, 1885) sends an official statement of the exports of domestic produce from the Hawaiian Islands during the first six months of 1884 and 1885, respectively:

Articles.	1884.	1885.	Increase.	Decrease.
Sugar.....pounds..	90,645,803	121,873,375	31,227,573	.....
Molasses.....gallons..	70,169	27,526	.....	42,643
Rice.....pounds..	4,618,600	3,384,853	.....	123,747
Bananas.....bunches..	29,462	29,847	385	.....
Goat-skins.....pieces..	11,643	9,802	.....	1,841
Hides.....do.....	10,285	10,191	.....	94
Wool.....pounds..	90,811	71,639	.....	19,172
Sheep-skins.....pieces..	3,160	5,603	2,443	.....

**HOLLAND.***REPORT BY CONSUL STOCKTON ON FLUSHING AND GERMAN STEAMSHIP SUBSIDIES.*

The German Empire has granted an annual subsidy of 4,000,000 marks to establish certain lines of fast mail steamships. In addition to the above-mentioned sum 400,000 marks have been appropriated for a side-line from Trieste, via Brindisi to Alexandria, connecting with the principal lines by rail at Suez.

The contract which has been awarded to the North German Lloyd, of Bremen, Germany, covers the following principal points:

I. The principal line to be from Bremerhaven to China, via a Belgian or Dutch port; and further via Port Said, Suez, Aden, Colombo, Singapore, Hong-Kong, to Shanghai. Connecting line from Hong-Kong, via Yokohama, Hiogo, a Corean port, and Nagasaki, back to Hong-Kong.

II. Another line to run from Bremerhaven to the Australian continent, via a Belgian or Dutch port; and further via Port Said, Suez, Aden, the Tschagos Islands, Adelaide, and Melbourne, to Sydney. The North German Lloyd may continue the second principal line to Brisbane at their option. A connecting line to go from Sydney, via the Tonga Islands, to Apia and back to Sydney.

III. A third line to run from Trieste, via Brindisi, to Alexandria.

For the above lines the minimum speed has been fixed as follows: First principal line, and the Mediterranean side line, 12 knots; the second principal line 11½ knots. Failure to attain this rate of speed, without proper excuse, will be fined at the cost of 50 marks per hour. There must be three classes for passengers upon each ship, and a trained surgeon.

The new steamers necessary must be built in German ship-yards, of German material, and the plans must be approved by the chancellor of the Empire. The coal used must be German as far as practicable.

The freight charges to and from Hamburg are to be equal to those from and to Bremen.

The regular sailings have to commence inside of one year from the date of the contract. Any delay on this point will subject the company to a fine of 400 marks per day.



THE PORT OF FLUSHING.

Flushing, a port at which an agency under this consulate is established, has been selected by the chancellor of the German Empire, to whom the power of decision was given by the Reichstag, as the point to be touched by the new lines, creating a feeling of great disappointment in her less fortunate rivals Antwerp, Amsterdam, and Rotterdam, the representatives of which are now seeking to have the chancellor reverse his decision. It is not probable, however, that their efforts will avail, as Flushing presents some important advantages. Its close proximity to the North Sea, and its position at the mouth of the river Scheldt, make it the most important marine point of both Holland and Belgium.

Further features are the immense stone docks, of the most improved pattern, that have, since their construction by this Government at an immense outlay, been idle, although vessels of the largest draught can at all seasons readily enter them, the quantity of unused ground space at the water's edge, and an extensive railroad connection with the principal parts of Europe.

The advantages to the commerce of Flushing will prove of great value in the near future, as heretofore all communication between Holland, China, and Australia has been divided among the different ports of Holland and forwarded via England.

RICHARD STOCKTON,  
*U. S. Consul.*

UNITED STATES CONSULATE,  
*Rotterdam, July 31, 1885.*

HONG-KONG.

Consul Mosby sends to the Department under date July 18, 1885, the following statement of the value of imports from the United States into Hong-Kong for seven years, compiled by Messrs. Russell & Co.:

Years.	Ginseng.	Kerosene.	Flour.	Quicksilver.
	<i>Pounds.</i>	<i>Cases.</i>	<i>Quarter-sacks.</i>	<i>Flasks.</i>
1884.....	332, 400	582, 660	1, 220, 241	.....
1883.....	357, 600	406, 698	1, 164, 838	14, 180
1882.....	420, 000	383, 565	1, 002, 838	23, 070
1881.....	304, 800	186, 630	907, 621	14, 010
1880.....	348, 800	203, 440	966, 528	22, 009
1879.....	446, 266	64, 000	874, 379	83, 676
1878.....	533, 600	75, 384	752, 593	19, 921

MOROCCO.

REPORT BY CONSUL MATHEWS ON RESOURCES AND COMMERCE.

AGRICULTURE.

It is proved beyond doubt that the agricultural resources of this country are great, and the fertility of the soil is such that by a mere scraping on the surface abundant crops of grains are yearly gathered. The empire presents such variety and excellence of climate and soil in

hill and valley, woodland, and open plain, watered by rivers and numerous small streams, that almost every plant under the sun might be raised within its limits. Even by the application of ordinary industry at least ten times the present population might be supported.

After a repetition of years of lost and indifferent crops, the country has again seen one of those abundant harvests for which Morocco was famous in former times, even previous to the Roman conquest. The general belief of those most acquainted with it, and knowing what the extent of agriculture was formerly, is that the crops of wheat and barley in 1884 has been unprecedented. The crops of exportable grain have been good only in corn, of which a good demand has been from Portugal.

Wheat and barley, the exportation of which is prohibited, has been exported in large quantities by the Sultan, chiefly to Marseilles. Many of the farmers have left their wheat standing on the fields, there being no market where to dispose of the vast quantities on hand, and the means of transportation in Morocco—camels, mules, and donkeys—renders it expensive to move from the far interior to the coast, where they could dispose of it, even at low figures.

#### IMPORTS.

From the accompanying statistics of imports and exports in this country it will be observed that there has been a falling off in the imports of foreign goods, while on the other hand the total of exports has increased considerably over the previous estimates.

These changes show a marked improvement in the general state of things, as can be explained by comparison of figures. As compared with the years 1882-'83, the decrease in total imports is only of \$288,085, which is accounted for by a few items whose importation only takes place in famine times, as, for instance, the reduction in wheat alone is \$28,110, the reduction in rice \$272,730, which two items alone, amounting to \$300,840, more than account for the total falling off, while in other articles of general import the actual increase has been considerable, such as sugar, tea, spices, cotton goods, candles, coffee, and other goods, which denote a better demand, enhanced by the better condition of the country. One of the most interesting features of the whole, which I consider well worth dwelling upon, is that a remarkable increase is observed in articles imported from the United States, such as agricultural implements, arms, ammunition, preserved provisions, independent of other articles, which, though of American production, only reach this country through second and sometimes third hands, such as raw cotton, petroleum, deal planks, tobacco, and many fancy articles which can be seen, brought from England, France, Gibraltar, Germany, &c. This proves that were these articles not hampered with the heavy percentages of duties paid in the countries through which they pass, and the profits of those who import them from the States, a greater and more profitable trade could be done either directly from the States to Morocco, or in transit via Gibraltar. With present abundance of steam communication and moderate types of freights, our manufacturers would find it worth their while to try to make an opening for their production in this country, which represents not only an important empire, but, under normal circumstances, the high road to many districts bordering on Central Africa, whence great caravans come twice or thrice a year to meet traders at Wadinoon and Ait-Bou-Amran. I must confess that great credit is due to our consular agents and a few American citizens who reside in the country and try to introduce on a small scale some of

the American manufactures most needed in the country. But these gentlemen's efforts should be seconded by the manufacturers themselves sending samples and specimens of their various manufactures, which I feel confident can compete advantageously with those of European manufacturing centers, as is proved by the facts of American articles finding an easy sale in Europe itself. Many travelers who have visited this country have convinced themselves of this, and I have no doubt that those of our manufacturers who desire the development of American trade will find among the articles enumerated in the accompanying report, many which America can supply to greater advantage than Europe. It is needless to add that many of our manufacturers and merchants who have required it have always found this consular office, as well as all our commercial agencies, ready to furnish the best reliable information on any topic of inquiry connected with trade, and in same manner such detailed information can be supplied to any that may require it on any particular subject wherein trade, enterprise, or industry is concerned.

It affords me great pleasure to attest that some of the American citizens residing in this country have made great sacrifices to introduce agricultural implements and machinery at heavy expense to themselves; and there is no doubt that if the proposed improvement in the Government administration with regard to farmers is carried out, enterprising agriculturists will find advantageous employment of American machinery in cultivating the vast waste lands of this country, and thus develop its great but, at present, crippled resources. It has been the unanimous opinion of all foreign representatives in this country that only with the necessary reforms in the administration of this country, with regard to agriculture, can there be any hopes of an improvement in its general condition, internally as well as in its connection with the outside world, and although progress moves but slowly here for many political motives, it nevertheless is evident all influences are being brought to bear upon the Sultan's Government, with a view to adopt such reforms as will allow the realization of the general interests of this country as well as of the foreign residents and their correspondents in foreign countries.

#### EXPORTS.

In exports there is an actual increase in the total of about \$275,000, As may be observed from the statistics, the increase is mainly confined to heavier shipments of cereals, such as beans, maize, peas, lentils, fengreek, and millet, all of which have given abundant crops. On the other hand there is a considerable decrease in two classes of our production, being the two extremes, that is to say, poor articles, such as Esparto grass, palmetto, roots, henna, rags, and other articles of low value, which the natives neglect to gather as they find field-work and grain cultivation pays better than low-priced goods, which are generally turned to in times of famine; the second class is quite the contrary, and consists of articles of luxury, such as fancy goods, tanned skins, wools, &c., which the natives consume in the country because they can better afford it with the cheapness of breadstuff. The same causes have increased the shipments of such articles as sheep and goat skins, and hides, products of the slaughter-house, as the working classes find that they can afford to pay for meat.

Although I have pointed out a few articles specially shipped by travelers from the United States who visit the country, yet there is no doubt that many of the Morocco products find their way to America indirectly through England, France, and &c., as there is no direct communication between Morocco and the United States.

One of the greatest drawbacks to the increase of importance in exports is the high tariff of duties that is paid to the Moorish Government on all the articles shipped, some of which pay as much as 60, 80, 100, and even 130 per cent. on the value. These exactions cripple the resources of the country by preventing shipments of many articles, except when prices are comparatively very high at the consuming markets, thus making an exception of what should be the rule, it being undeniable that were the duties levied on export to be reduced by at least one-half, or established ad valorem, as is the case with imported foreign goods, the shipments would so increase as to more than compensate for the reduction on the tariff, while great benefit would be felt by the country generally, from the agriculturist, who would find a freer outlet for his produce and better prices than buyers can give at present, to the very laborer, who will find more employment as agriculture and commerce become more developed.

It is now some months since the representative of Great Britain has announced to his Government the commencement of negotiations with the Moorish court with a view to modify the existing treaties of commerce, and establish them on the above-mentioned basis. As we have the clause of treatment like the most privileged nation, I am carefully watching the progress of these negotiations. The French chamber of commerce and the societies of commercial geography are also said to be taking active steps to push their Government to urge upon the Sultan the necessity of such reforms in the administration of his country as will prove compatible with the general interests. With such levers as these we shall not be long waiting to see some changes take place in this country, which may now be considered in a state of transition requiring most vigilant watching by all nations who have or are likely to have interests at stake in its affairs.

#### SHIPPING.

In shipping there has also been an increase brought about by the establishment of the regular bi-monthly postal service with Algeria, as also by the arrival of many sailing vessels to take grain cargoes. I do not lose hope of inducing some of the steamship companies who ply between the United States and Gibraltar to make an occasional call here as soon as more active commercial relations are established; in fact, I am now urging all who have correspondence with the States to increase the direct trade, so as to allow of my negotiating with some of the companies to make a call on their way from Gibraltar to Cadiz, a call which would not cost them much, as port dues here are extremely small, while on the other hand the knowledge of there being such a thing as steamers calling direct from the States would encourage traders to extend their operations.

It may perhaps be of interest to show in a tabular form the total value of imports to Morocco during the last fourteen years:

Years.	Imports.	Exports.
1870-'71.....	\$3, 386, 470	\$3, 136, 840
1871-'72.....	3, 900, 255	4, 566, 305
1872-'73.....	4, 253, 880	6, 142, 885
1873-'74.....	4, 172, 390	7, 777, 330
1874-'75.....	5, 238, 000	5, 396, 755
1875-'76.....	5, 057, 940	6, 466, 766
1876-'77.....	4, 888, 085	5, 424, 940
1877-'78.....	5, 413, 310	6, 074, 410
1878-'79.....	4, 492, 775	3, 491, 850
1879-'80.....	4, 714, 863	3, 747, 605
1880-'81.....	3, 638, 895	3, 381, 770
1881-'82.....	3, 942, 680	3, 441, 415
1882-'83.....	4, 423, 440	3, 191, 520
1883-'84.....	3, 577, 500	4, 022, 945

It is probable that this country will ere long undergo such changes in many respects as will render its connection politically and commercially of great importance to all civilized powers, and more especially to great industrial countries like the United States.

F. A. MATHEWS,  
*Consul.*

UNITED STATES CONSULATE,  
*Tangier, April 1, 1885.*

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## NICARAGUA.

### REPORT OF CONSUL LEAVITT ON ITS FOREIGN COMMERCE.

There are no manufacturing interests in Nicaragua. Hides, deer-skins, forest products, such as rubber, dye-woods, and cedar, and agricultural products, as coffee and indigo, form the chief articles of export. Rubber, coffee, dye-woods, and cedar form about 90 per cent. of the entire exports, and for the want of banks remittances are made in these products.

The great want of the country is capital, and it is from this want that the long-credit system which prevails arises.

Everything is done on credit. The Nicaraguan merchant goes to Europe and obtains a stock of goods on credit. He sells to the retail merchants in the villages on credit. The owners of the coffee, sugar, indigo, and cattle estates have no capital, and they in their turn purchase from the retail merchant on credit, in many instances paying their men by orders on the retail stores for goods.

When the crops are gathered a grand liquidation of accounts is made. The planter liquidates his indebtedness to the retail merchant in coffee, indigo, &c. The retail merchant with this produce liquidates his indebtedness to the wholesale merchant, and the wholesale merchant ships this produce to Europe to liquidate his indebtedness with the foreign house.

This system works well just so long as crops and prices are good ; but the moment there is a bad or short crop or a decline in the market the planter cannot pay the retail merchant, the retail merchant cannot pay the wholesale merchant, and the wholesale merchant cannot make his remittance abroad, and it is on the foreign house the loss falls.

This being the mode of doing business it becomes a question of great importance to ascertain the value of the products of the country. For this purpose I have prepared a series of tables of the imports and exports of the country covering the last twelve years.

The customary rate of interest, on good security, is  $1\frac{1}{2}$  per cent. per month, and reaches as high as 4, or even 5, per cent. per month.

After the wholesale merchant has purchased his goods on credit he has heavy customs duties and high freights to meet, and, to pay these, he goes to the money-lenders, paying the above rates. The planter, to move his crops and carry on his estate, does the same.

It might be asked, Cannot the foreign house be secured by mortgage on real property ? In the laws on mortgages there is a clause that upon the foreclosure of a mortgage the mortgaged property cannot be sold to the highest bidder, but can only be sold at two-thirds of its actual market value. To determine this value appraisers are appointed and the purchaser under the mortgage must pay to the mortgager the difference



between the amount of the mortgage and the appraised value of the property, less the expense of the foreclosure and sale. This virtually makes a mortgage valueless, except as an evidence of debt, for appraisers generally value an estate far in excess of its real value.

## TOTAL IMPORTS AND EXPORTS.

The total imports of Nicaragua for the ten years 1873 to 1884, inclusive, amounted to \$16,034,998.08. The total exports for the same years, \$20,031,666.17.

In a former report, dated April 4, 1885, I drew attention to the fact that the statistics of exports were expressed in soles, while the imports were in American gold, and the freight (always prepaid) was not included.

Expressing the imports in soles, and adding the approximate freight, the imports for the above years would be \$21,326,547.44.

In all the subsequent tables and statements of values they are expressed as given in the official statistics, which, on their face, are presumed to be in the currency of the country, viz, the sol, but it must be kept in view that there is every reason to believe that the values of imports are in reality in American currency, while the exports are in soles.

The total imports for the six years 1873 to 1878, inclusive, amounted to \$6,495,053.61. For the years 1879 to 1884, inclusive, \$9,539,944.47, showing an increase of \$3,044,890.86.

The total exports for the six years 1873 to 1878, inclusive, amounted to \$8,289,266.42, and for the six years 1879 to 1884, inclusive, \$11,742,399.75, showing an increase of \$3,453,133.33.

Prior to 1877 the statistics are exceedingly incomplete, merely giving the sum total of imports and exports; therefore, in preparing the following tables I have commenced with the year 1877, giving, however, at the head of each table the imports and exports for 1873 and the following years to 1877, as far as I have the data:

Year.	Imports.	Exports.
1873.....	\$1,278,871 34	\$1,164,820 31
1874.....	1,062,766 03	1,210,674 16
1875.....	961,141 31	1,828,418 75
1876.....	1,031,068 06	1,460,568 14

*Total imports and exports for the years 1877 to 1884, inclusive.*

Year.	Imports.			Exports.			Total.
	Value.	Increase.	Decrease.	Value.	Increase.	Decrease.	

## IMPORTS AND EXPORTS OF SPECIE.

Referring again to the question of the values of imports being expressed in American gold and the exports in soles, a strong confirmation of this is found in the imports and exports of specie. With the exception of 10 and 20 cent silver pieces (which are coined abroad) Nicaragua coins no money.

Since 1879 the exports of specie have been more than double of the imports, viz: Imports from 1880 to 1884, inclusive, \$322,312.92; exports, \$796,781.71, making a balance in favor of exports of \$474,468.79, which is \$152,155.77 greater than the entire imports.

In 1879 the imports of specie amounted to \$231,752.11; exports, \$96,116.14; balance in favor of imports, \$135,635.62. This can partly be accounted for by the great increase in the price of rubber in that year. There was a decrease in the amount exported of 76,805 pounds, while there was an increase in value of \$155,543.80, and also in the increase in the exports of coffee, viz, 1,504,266 pounds; value, \$137,172.79.

Again, a few years ago, there was considerable gold in circulation, American, English, and French. Exchange on American gold was 3 per cent. premium, while English and French exchange was at par. About 1876 gold became scarce; and at present no gold whatever is in circulation, and exchange varies from 20 to 25 per cent. premium, with an upward tendency.

*Imports and exports of specie for the years 1879 to 1884, inclusive.*

Year.	Imports.	Exports.	Balance in favor of imports.	Balance in favor of exports.
1879.....	\$231, 752 11	\$96, 116 49	\$135, 635 62	.....
1880.....	97, 844 20	120, 071 00	.....	\$22, 226 80
1881.....	42, 214 13	125, 748 52	.....	83, 534 39
1882.....	70, 649 87	96, 974 33	.....	26, 324 46
1883.....	71, 574 18	180, 572 08	.....	108, 997 90
1884.....	40, 030 54	273, 415 78	.....	233, 385 24
Total .....	554, 065 03	892, 898 20	.....	338, 833 17

## PACKING OF GOODS.

Unless a marked improvement is made in the manner of packing goods, the commerce of the United States with this country will be seriously injured. Strength, lightness, and compactness are absolutely necessary.

Customs duties are levied on the gross weight, including case and wrappers, and should the American merchant sell at a lower rate than the European, the lower price may be more than counterbalanced by the payment of higher customs duties, owing to heavier or more bulky packing.

As an illustration of the effects of bad packing, I give the following: The American cooking-stove is universally used to the exclusion of all others; but they are enormously expensive, and a merchant informed me the reason of this was that half of those imported were broken in transit, and a sufficient price for the sound ones had to be charged to cover cost of broken ones.

## FOREIGN COMMERCE.

The commercial relations of Nicaragua are mostly with England, United States, France, and Germany.



The following tables show the imports and exports for the years 1877 to 1884, inclusive, of each country :

*Commerce with foreign countries for the years 1875 to 1884, inclusive.*

## ENGLAND.

Year.	Imports.			Exports.			Total.
	Value.	Increase.	Decrease.	Value.	Increase.	Decrease.	
1875 .....	\$418,194 55						\$418,194 55
1876 .....	435,419 60	\$17,225 05					435,419 60
1877 .....	789,869 72	354,450 12		\$517,926 85			1,307,796 57
1878 .....	450,394 35		\$339,475 37	498,534 36		\$19,392 49	948,928 71
1879 .....	540,779 64	90,385 29		428,667 37		69,866 99	969,447 01
1880 .....	651,681 88	110,902 24		605,137 55	\$176,470 18		1,256,819 43
1881 .....	765,413 12	113,781 24		639,285 49	34,147 94		1,404,698 61
1882 .....	613,261 54		152,151 58	624,153 61		15,131 88	1,237,415 15
1883 .....	678,392 01	65,130 47		718,156 90	94,003 29		1,396,548 91
1884 .....	728,481 44	50,089 43		775,922 56	57,765 66		1,504,404 00
Total..	5,218,273 70			4,807,784 69			10,026,058 39

## UNITED STATES.

1875 .....	117,230 69						117,230 69
1876 .....	73,336 46		43,894 23				73,336 46
1877 .....	202,621 55	129,285 09		420,400 61			623,022 16
1878 .....	196,258 30		6,363 25	396,233 79		34,166 82	592,492 09
1879 .....	263,394 09	67,135 79		503,154 00	\$106,920 21		766,548 09
1880 .....	395,892 79	132,498 70		905,694 70	402,540 70		1,301,587 49
1881 .....	388,636 86		7,255 98	761,562 73		144,131 97	1,150,199 59
1882 .....	424,269 21	35,632 35		894,398 15	132,835 42		1,318,667 36
1883 .....	452,648 68	28,379 47		973,436 94	79,088 79		1,426,135 62
1884 .....	478,354 21	26,705 53		815,474 99		158,011 95	1,293,829 20
Total..	2,992,642 84			5,670,405 91			8,663,048 75

## FRANCE.

1875 .....	418,194 55						418,194 55
1876 .....	435,419 60	17,215 05					435,419 60
1877 .....	131,732 46		303,687 14	126,153 13			257,885 59
1878 .....	149,962 58	18,250 12		123,104 10		3,049 03	273,086 68
1879 .....	148,404 83		1,577 75	139,932 17	16,828 07		288,337 00
1880 .....	160,211 69	11,807 86		84,156 60		55,775 57	244,368 29
1881 .....	345,705 99	185,494 30		197,806 79	113,650 19		543,512 78
1882 .....	295,601 29		50,104 70	168,567 53		29,239 26	464,168 82
1883 .....	264,663 92		30,937 37	281,503 20	112,935 67		546,167 12
1884 .....	297,438 68	32,774 76		234,351 05		47,152 15	531,789 73
Total..	2,647,355 59			1,355,574 57			4,002,930 16

## GERMANY.

1875 .....	41,037 30						41,037 30
1876 .....	31,978 78		9,058 52				31,978 78
1877 .....	16,696 82		15,271 96	79,758 50			96,455 32
1878 .....	22,471 26	5,774 44		77,998 76		1,759 74	100,470 02
1879 .....	45,017 81	22,546 55		155,312 32	77,318 56		200,330 13
1880 .....	25,761 80		19,256 01	103,716 75		51,595 57	129,478 55
1881 .....	53,046 06	27,284 26		56,897 13		46,819 62	109,943 29
1882 .....	78,361 25	25,325 19		107,718 07	50,820 94		186,079 32
1883 .....	122,109 09	43,747 84		133,645 66	25,927 59		255,754 75
1884 .....	188,871 40	66,762 31		228,617 44	94,971 78		417,488 84
Total..	625,351 57			943,664 63			1,569,016 30

The following table shows the proportion of the total trade of Nicaragua enjoyed by the four nations named and their respective shares:

Countries.	1877.	1884.	1877-'80.	1881-'84.
	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>
England .....	51.4	36.9	41.2	36.4
United States .....	24.5	31.7	30.1	34.2
France .....	10.1	13.0	9.7	13.7
Germany .....	8.7	10.2	4.8	6.4
Total .....	89.7	91.8	85.8	90.7

The proportion of imports supplied and exports taken by these nations was:

Countries.	Imports.		Exports.	
	1877-'80.	1881-'84.	1877-'80.	1881-'84.
	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>
England .....	50.7	40.1	83.8	83.4
United States .....	22.1	25.1	36.5	41.7
France .....	12.8	17.3	7.7	10.6
Germany .....	2.2	6.3	6.8	6.3
Total .....	87.8	88.8	84.8	92.0

#### EXPORTS OF RUBBER.

The total exports of rubber for the eight years, 1877 to 1884, inclusive, amounted to 12,473,007 pounds; value, \$4,292,150.15. The exports for the four years 1877 to 1880, inclusive, amounted to 6,666,659 pounds; value, \$1,654,787.05; and for the four years, 1881 to 1884, inclusive, 5,806,348 pounds; value, \$2,637,363.10; showing an increase in value in the last four years of \$982,576.05 and a decrease in amount of 860,311 pounds. The average export price in the first four years was 24½ cents per pound, and in the last four years 45½ cents per pound.

*Export of rubber in detail for the years 1877 to 1884, inclusive.*

Year.	Exported.		Increase.		Decrease.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	<i>Pounds.</i>		<i>Pounds.</i>		<i>Pounds.</i>	
1877 .....	2,291,656	\$348,733 70	.....	.....	.....	.....
1878 .....	1,402,142	210,082 00	.....	.....	889,514	\$188,651 70
1879 .....	1,325,337	365,625 80	.....	\$155,543 80	76,805	.....
1880 .....	1,647,524	730,345 65	322,187	364,719 75	.....	.....
1881 .....	1,513,530	681,088 50	.....	.....	183,904	49,257 06
1882 .....	1,418,023	638,110 35	.....	.....	95,507	42,978 15
1883 .....	1,569,657	826,396 10	151,634	188,273 75	.....	.....
1884 .....	1,305,138	491,778 15	.....	.....	264,519	834,607 95
Total .....	12,473,007	4,292,150 15	.....	.....	.....	.....

*Exports of rubber to each country.*

Destination.	1877.		1878.		1879.		1880.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
United States..	1, 399, 085	\$213, 805	986, 295	\$147, 372	969, 797	\$263, 715	1, 352, 475	\$597, 573
England .....	858, 415	129, 811	378, 000	57, 127	279, 150	74, 891	291, 552	131, 198
France .....	22, 728	3, 368	33, 822	5, 066	9, 563	2, 532	1, 712	770
Germany .....	11, 088	1, 663	8, 425	515	1, 895	523	1, 785	803
Colombia .....	340	85	.....	.....	.....	.....	.....	.....
Jamaica .....	.....	.....	.....	.....	3, 908	1, 016	.....	.....
St. Thomas.....	.....	.....	.....	.....	10, 707	2, 784	.....	.....
Unknown.....	.....	.....	.....	.....	50, 408	20, 163	.....	.....

Destination.	1881.		1882.		1883.		1884.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
United States..	1, 167, 896	\$525, 553	1, 148, 535	\$516, 840	1, 368, 516	\$676, 833	1, 021, 739	\$377, 781
England .....	345, 634	155, 535	266, 874	119, 868	181, 975	140, 987	253, 094	102, 512
Germany .....	.....	.....	2, 150	967	14, 969	7, 062	7, 272	2, 313
France .....	.....	.....	964	433	2, 400	1, 200	23, 083	9, 169
Italy .....	.....	.....	.....	.....	967	433	.....	.....
Colombia .....	.....	.....	.....	.....	800	320	.....	.....

It will be seen from the foregoing table that the bulk of the rubber is exported to the United States; out of the total exports in the last eight years, the United States received 8,413,468 pounds, valued at \$3,318,976 or 67.4 per cent., and England 2,854,794 pounds, valued at \$911,933.32, or 22.9 per cent.

## COFFEE.

Of the agricultural products coffee is the most important, but it cannot be said that coffee culture in Nicaragua has arrived at a high state of development. That the climate and soil are well adapted to its cultivation has been amply proved, and did the coffee planters give a proper care and attention to their estates a great improvement would take place in the quality of the coffee. But most of the planters, year after year, allow nature to do their work.

A notable exception to the general neglect that prevails in the management of estates is that of a Mr. Vaughann, an English gentleman, who some fifteen years ago invested in coffee, and in that time has made an estate equal to any in Central America, and far superior to any in Nicaragua. As a consequence he obtains a better price for his coffee than is obtained by other planters.

Coffee plantations are at an elevation of not less than 1,000 feet above sea-level, and the scarcity of water which prevails at that elevation is a serious impediment to coffee cultivation, not for irrigation purposes, but for cleaning coffee.

At a comparatively small outlay of capital this obstacle can easily be overcome by the building of tanks for the storing of water during the rainy season, during which a sufficient supply can always be obtained.

Mr. Vaughann, above referred to, has used tanks with great success, and not only has a sufficient supply for his own wants, but to a large extent supplies the inhabitants of the village of Diriamba, which is about 2 miles from his estate.

It seems almost incredible that this simple expedient for the storing of water would not be universally adopted by the planters, for the people in Diriamba in the dry season actually suffer from thirst, and water is sold at from 5 to 20 cents for a tenocha, which holds 4 gallons.

The total exports of coffee from 1877 to 1884, inclusive, amounted to 36,392,478 pounds, valued at \$3,697,917.64.

The exports for the four years 1877 to 1880, inclusive, was 11,669,459 pounds, value \$1,402,022.24, and for the four years 1881 to 1884, inclusive, 24,723,019 pounds, value \$2,295,895.40, showing an increase in the last four years of 13,053,560 pounds, value \$893,873.16.

The average price in the first four years was 12.09 cents per pound, and in the last four years 9.3 cents per pound.

*Exports of coffee in detail for the years 1877 to 1884, inclusive.*

Year.	Exported.		Increase.		Decrease.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	<i>Pounds.</i>		<i>Pounds.</i>		<i>Pounds.</i>	
1877.....	1,586,969	\$293,179 88				
1878.....	2,025,021	253,222 11	438,052			\$39,957 77
1879.....	3,529,287	390,394 90	1,504,266	\$137,172 79		
1880.....	4,528,182	465,225 35	998,895	74,830 45		
1881.....	4,698,288	422,845 92	170,106			42,379 48
1882.....	7,328,376	659,553 84	2,630,088	236,707 92		
1883.....	5,457,930	516,846 62			1,370,446	142,707 22
1884.....	7,238,425	696,649 02	1,780,495	179,802 40		
Total .....	36,392,478	3,697,917 64				

*Exports of coffee to each country.*

Countries.	1877.		1878.		1879.		1880.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
England.....	824,535	\$146,653	979,834	\$122,479	1,919,594	\$207,131	2,161,585	\$225,070
United States.....	362,745	68,773	524,143	65,517	853,187	95,867	1,248,269	114,024
France .....	256,995	49,488	210,836	26,354	328,247	36,171	344,077	38,201
Germany .....	139,444	27,614	303,308	37,913	376,775	45,599	438,992	54,402
Colombia .....	3,250	650	2,800	350				
Central America.....			4,100	607	256	44		
Italy .....					28,371	2,837	335,259	33,525
Peru.....					132	16		
Unknown .....					22,725	2,726		

Countries.	1881.		1882.		1883.		1884.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
England .....	2,425,417	\$218,287	3,070,443	\$276,339	1,954,987	\$181,562	1,907,429	\$181,428
United States.....	725,947	65,835	2,068,528	186,167	1,356,851	126,844	2,382,018	226,705
France .....	633,701	57,033	910,497	81,944	971,369	93,840	739,168	73,700
Germany .....	623,957	56,156	1,135,835	102,225	1,057,218	103,544	2,198,169	209,662
Italy.....	289,266	26,033	106,110	9,549	111,156	10,394	11,141	1,102
Chili.....			19,558	1,760				
Colombia .....			17,405	1,566	4,191	335		
Central America.....					2,658	325	500	50

The total amount of coffee exported in the last eight years was as follows :

Countries.	Quantity.	Value.
	<i>Pounds.</i>	
England .....	15, 243, 824	\$1, 558, 953 54
United States .....	9, 521, 188	949, 235 44
Germany .....	6, 373, 698	637, 117 61
France .....	4, 394, 890	456, 734 96
Italy .....	881, 293	83, 443 18

INDIGO, HIDES, AND DEER-SKINS.

The exports of indigo for the eight years 1877 to 1884, inclusive, amounted to 430,917 pounds; value, \$426,079. The exports for the four years 1877 to 1880, inclusive, were 114,386 pounds; value, \$109,905. For the four years 1881 to 1884, inclusive, 316,532 pounds; value, \$316,174, an increase in the last four years of 202,146 pounds; value, \$206,269. The average export price in the first four years was 96.08 cents per pound; in the last four years \$1.02 per pound.

The total export of hides for the eight years (1877 to 1884) was 6,849,769 pounds, of the value of \$810,209.82. The average export price from 1877 to 1880 was 11.4 cents a pound, and from 1880 to 1884 12.2 cents.

The export of deer-skins in the same eight years was 1,225,067 pounds, valued at \$328,844.43. The average export price in the first four years was 21.7 cents a pound, as compared with 30.8 cents in the last four years.

The following were the exports in detail :

Year.	Indigo.		Hides.		Deer-skins.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	<i>Pounds.</i>		<i>Pounds.</i>		<i>Pounds.</i>	
1877.....	7, 791	\$6, 232 00	934, 608	\$118, 714 96	135, 590	\$27, 468 08
1878.....	14, 374	11, 499 40	891, 871	107, 653 24	82, 676	16, 490 20
1879.....	11, 580	11, 532 00	688, 344	75, 621 90	53, 898	11, 091 80
1880.....	80, 640	80, 641 00	1, 059, 859	105, 985 90	262, 946	61, 079 20
1881.....	81, 379	81, 379 00	715, 332	107, 299 80	92, 220	35, 043 60
1882.....	45, 259	45, 259 00	374, 001	56, 100 15	194, 166	73, 783 08
1883.....	106, 345	106, 107 00	1, 131, 916	109, 232 38	193, 553	51, 158 77
1884.....	83, 549	83, 429 00	1, 058, 838	129, 601 49	210, 008	52, 729 70
Total .....	430, 917	426, 079 00	6, 849, 769	810, 209 82	1, 225, 057	328, 844 48

FOREST-WOOD PRODUCTS.

The forest-wood products of any importance are fustic (mora), cedar, and Brazil. The exports of mahogany and genizaro are inconsiderable. Of these, fustic ranks first, and, of the exports, ranks next to coffee in importance.

The average export prices of woods were :

Name.	1877-'80.	1881-'84.
Fustic.....ton..	\$8. 292	\$9. 568
Cedar.....do ..	21. 05	28. 06
Brazil.....cwt..	. 788	. 291

The exports of these woods and the value were :

Year.	Fustic.		Cedar.		Brazil.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	<i>Tons.</i>		<i>Feet.</i>		<i>Cwt.</i>	
1877.....	6,312	\$62,608 00	3,967,887	\$94,339 09	9,675	\$7,732 50
1878.....	8,290	66,328 00	4,322,784	86,455 68	2,420	1,815 00
1879.....	15,964½	127,736 00	3,914,295	78,804 36	.....	.....
1880.....	14,189	114,460 00	1,981,600	39,632 00	387,1½	290 89
1881.....	11,696	93,568 00	643,700	16,092 00	1,290,4½	2,580 94
1882.....	15,246½	121,972 00	829,793	20,744 82	1,180	2,360 00
1883.....	34,034	340,340 00	780,600	23,418 00	40,600	9,744 00
1884.....	29,052	305,563 50	3,251,403	97,542 09	22,100	4,804 00
Total .....	134,784	1,232,575 50	19,692,062	456,528 04	77,652,1½	28,826 83

H. H. LEAVITT,  
Consul.

UNITED STATES CONSULATE,  
Managua, Nicaragua, August 26, 1885.

PERU.

REPORT BY CONSUL BRENT ON NEW REGULATIONS RESPECTING IMPORTATIONS INTO PERU, JUNE 4, 1885.\*

In virtue of a decree issued by the Peruvian Government under date of the 3d instant, every package of merchandise brought from abroad and landed in the ports of Peru must be marked clearly on the outside with its gross weight in kilograms, and this weight must correspond with the specifications of the manifest. The order established by this decree is to go into effect six months from date thereof, so that all packages of merchandise arriving here after the 3d of December of this year will be subject to the conditions imposed. In case of the discovery of false weights double duty will be collected and a fine of from 20 cents to 10 soles silver will be laid on every package respecting which the prescriptions of the ordinance may not be observed.

This decree is viewed with much disfavor by the commercial community, and a formal protest against it will probably be presented, but judging from recent experience the remonstrance will have no effect.

The inconveniences arising from an observance of the decree are palpable, when it is considered that in a parcel of a thousand cases of kerosene, for instance, each individual case must be marked with its precise weight, and that weight to be computed by a standard not in use in the United States.

H. M. BRENT,  
Consul.

UNITED STATES CONSULATE,  
Callao, June 4, 1885.

\* This information was given to the press immediately on its receipt at the Department.

PORTO RICO.

Commercial Agent Hubbard sends (July 31, 1885) the following statement of the exports of sugar, coffee, and tobacco from Porto Rico since 1828, in periods of five years :

[Quintal=100 pounds.]

Periods of five years.	Sugar.	Coffee.	Tobacco.
	<i>Quintals.</i>	<i>Quintals.</i>	<i>Quintals.</i>
1828-'32 .....	291,892	125,176	33,634
1833-'37 .....	415,444	97,802	43,646
1838-'42 .....	793,283	104,687	46,070
1843-'47 .....	874,046	101,188	55,071
1848-'52 .....	1,052,437	106,900	40,210
1853-'57 .....	1,046,445	115,381	35,268
1858-'62 .....	1,065,680	129,801	50,656
1863-'70 .....	1,883,251	186,723	34,632
1874-'78 .....	1,510,767	195,307	46,949
1879-'83 .....	1,570,667	331,244	44,553

RUSSIA.

REPORT BY CONSUL VAN RIPER, ON INCREASED DUTIES IN RUSSIA.

I send herewith the list of articles upon which a higher rate of duties will be imposed in the Russian Empire on and after July 1 (13), 1885, instant.

E. G. VAN RIPER,  
*Consul.*

UNITED STATES CONSULATE,  
*Moscow, July 11, 1885.*

[Translation.]

Duties on the following merchandise will be raised and will be collected on and after July 1 (13), 1885, in the following manner, per gold value :

Para-graph.	Articles.	Amount of duties.
		<i>Rubles.</i>
2	Vegetables, besides potatoes, fresh and dry, in compressed form ..... per pood..	0. 12
3	Anisette, a. a. f. .... do....	. 48
5	Lemon peel ..... do....	. 48
6	Food ..... do....	. 12
7	Cement ..... do....	. 03. 4
9	Precious stones ..... per pound..	2 40
10	Artificial, miscellaneous..... per pood..	2 40
11	Jet or black amber..... do....	2 40
13	Sulphur, purified ..... do....	. 12
14	Minerals and metal ..... do....	. 04
16	Tar ..... do....	. 06
20	Cork, unmanufactured ..... do....	. 12
23	Licorice juice, compressed ..... do....	. 24
26	Animal produce, with the addition of 20 per cent. (besides p. 5) on the subsisting tariff.	



Para- graph.	Articles.	Amount of duties.
		<i>Rubles.</i>
29	Carpenter's works.....per pood..	0. 06
30	Basket works, with the addition of 20 per cent. on the subsisting tariff.	
35	Agricultural machines.....do....	. 50
36	Sea and river vessels, a. s. f., mentioned in this section, with the addition of 20 per cent.	
43	Meal-malt.....per pood..	. 12
44	Potato flour.....do....	. 72
45	Starch in pieces.....do....	1. 20
46	Rice:	
	(1) Refined.....do....	. 84
	(2) Crude.....do....	. 48
47	Vermicelli.....do....	1. 32
50	Fruits and berries:	
	(1) Green vegetables.....do....	. 66
	(4) Grapes, fresh.....do....	1. 54
51	Capers.....do....	2. 40
52	Turkish peas.....do....	. 48
53	Nuts, with the addition of 20 per cent.	
54	Fruits and berries, dry and all.....do....	1. 80
55	Salt meats.....do....	. 96
56	Cheese.....do....	6. 00
60	Confectionery, with the addition of 20 per cent.	
61	Ginger-breads.....do....	4. 20
62	Pies.....do....	4. 80
63	Truffles.....do....	7. 20
64	Champignons.....do....	. 52. 8
65	Fish and other merchandise.....per pood..	4. 80
67	Oysters.....do....	2. 40
68	Succaries.....do....	. 48
69	Laurel leaf.....do....	1. 32
70	Coffee in grains, a. s. f.....do....	3. 00
71	Cacao.....do....	3. 00
72	Spices sharp, with the addition of 20 per cent.	
73	Sugar imported by the ports of the Black Sea.....do....	3. 30
75	Tea imported by the custom-house of Irkutsk and Ameer.....do....	11. 00
79	Honey, Lipetz, a. s. f., with the addition of 20 per cent.	
80	All vinegar (besides that of toilet), with the addition of 20 per cent.	
81	Mineral waters.....per bottle..	. 03. 6
82	Fruit essence.....per pood..	. 60
83	Wood, with the addition of 20 per cent.	
84	Leather manufactured:	
	As per paragraph 1.....do....	10. 80
	As per paragraph 2.....do....	6. 00
	As per paragraph 3.....do....	7. 92
85	Peltry with furs, with the addition of 20 per cent.	
86	Whalebones.....do....	2. 64
87	Gree Lubka.....do....	2. 40
88	Flax and hemp yarn.....do....	5. 24
89	Raw silk and the merchandise mentioned in this point.....do....	. 66
91	Cotton wadding.....do....	1. 44
93	Cotton wick and all other.....do....	4. 80
95	All and added and also thin sorts of iron, large $\frac{1}{2}$ to $\frac{1}{4}$ diameter.....do....	. 60
96	Tin plates, a. s. f.....do....	1. 54
97	All and added and also thin sorts of steel, large $\frac{1}{2}$ to $\frac{1}{4}$ diameter.....do....	. 60
4	Crowbars.....do....	. 26. 4
98	Red copper, a. s. f., of all merchandise:	
	As per paragraph 1.....do....	1. 50
	As per paragraph 3.....do....	2. 00
90	Tin with the addition of 20 per cent.	
100	Quicksilver.....do....	2. 40
102	Zinc.....do....	. 44
103	Gum.....do....	1. 22
	Gum.....do....	5. 24
104	Rosin and all merchandise.....do....	. 13. 2
105	Naphtha, crude.....do....	. 20. 4
106	Transient oil.....do....	. 72
107	Turpentine oil.....do....	. 39. 6
114	Berlin blue.....do....	2. 64
117	Verdigris.....do....	3. 30
122	Ink.....do....	2. 40
123	Colors.....do....	2. 40
126	Tartar.....do....	. 26. 4
130	Yellow cyaneals.....do....	2. 64
139	Vitriol and all merchandise.....do....	. 66
140	Chemical productions.....do....	2. 40
141	Glue, with the addition of 20 per cent.	
142	Varnish.....do....	10. 20
143	Bone-coals.....do....	26. 04
144	Odoriferous ether-oils.....do....	15. 84
p. 3	Cacao-oil.....do....	. 66
147	Ethers.....do....	6. 00
148	Hops and extracts.....do....	1. 64

Para- graph.	Articles.	Amount of duties.
		<i>Rubles.</i>
149	Opium and galukary .....	5. 28
151	Patent medicines .....	12. 00
152	Manufactured alabaster .....	1. 44
153	Plaster, marble .....	. 60
154	Pottery wares, with the addition of 20 per cent.	
155	Porcelain ware, with the addition of 20 per cent.	
157	Glass ware, with the addition of 10 per cent.; p. II, addition of 10 per cent.	
158	Looking-glasses and looking-glass wares, over 800 square verschoks per every verschok, ———; the following 200 square werchocks added to the tariff, $\frac{1}{2}$ kupek per square verschok.	
159	Gold and silver wares, with the addition of 20 per cent., and on platinum wares, p. 3, 10 per cent.	
160	Bronze wares a. s. f. merchandise mentioned in this section, as per all points, with the addition of 20 per cent.	
161	Copper and gatter wares .....	4. 00
162	Cast-iron, manufactured:	
	As per paragraph 1 .....	. 60
	As per paragraph 2 .....	. 95
	As per paragraph 3 .....	1. 20
	Remark to p. III, 162.—All wares unmanufactured are free of duty, and those of manufactured weighing less than 5 pounds the piece pay the duty as per p. II, 165.	
163	Iron and steel wares of forge work .....	. 90
164	Iron and steel wares of forge work .....	1. 20
165	Iron and steel wares of forge work:	
	(1) More than 5 pounds the piece .....	1. 20
	(2) Less than 5 pounds the piece .....	2. 50
	Padlocks .....	4. 00
166	Tinwares:	
	As per paragraph 1 .....	3. 02 $\frac{1}{2}$
	As per paragraph 2 .....	6. 05
167	Wire wares:	
	As per paragraph 1 .....	1. 10
	As per paragraph 2 .....	3. 00
168	Wire works, as per paragraph 2 .....	4. 00
169	Steel igli, as per paragraphs 1 and 2, with the addition of 20 per cent.	
170	Cutlery, as per paragraphs 1 and 2, with the addition of 20 per cent.	
171	Arms and all merchandise .....	24. 00
172	Sickles and scythes .....	1. 20
173	Mechanical instruments .....	1. 20
174	Types .....	3. 39. 6
175	Machines and their parts:	
	As per paragraph 1 .....	8
	As per paragraph 2 .....	1. 20
176	Tin and zinc wares, with the addition of 20 per cent.	
177	Lead in wares .....	1. 05. 6
178	Loil foil .....	. 20
179	Cork, manufactured and unmanufactured, and linoleum .....	2. 64
180	Joiner and turner works, as per all points, with the addition of 20 per cent.	
181	Wood carved work and frame and all merchandises mentioned in this section, per pood .....	4. 98
183	Writing paper:	
	As per paragraph 1 .....	2. 42
	As per paragraph 2 .....	3. 96
	As per paragraph 3 .....	6
	As per paragraph 4 .....	10. 56
	As per paragraph 5 .....	7. 92
	As per paragraph 6 .....	14. 52
	As per paragraph 7 .....	. 60
	As per paragraph 8 .....	. 26. 4
184	Straw and plane works a. s. f. ....	1. 05. 6
185	Human hairs worked up .....	. 70. 2
186	Horse-hair and all merchandise mentioned in this section .....	2. 92. 8
187	Leather works, as per all points, with the addition of 20 per cent.	
188	Ropes, cords, and all merchandise mentioned in this section .....	. 52. 8
189	Linen and all merchandise mentioned in this section, with the addition of 20 per cent.	
190	Flax and hemp weaving and all merchandise mentioned in this section. per pound ..	. 84
191	Kalomenka and all mentioned in this section .....	. 60
192	Sail-cloth .....	. 20. 4
193	Flax and hemp binded and braided ware .....	. 66
194	Oil-cloth, raw cloth .....	. 14. 4
196	Silk wares .....	6. 60
197	Fulaeri .....	3. 96
198	Half-silk wares .....	2. 92. 8
199	Silk and half-silk work .....	1. 32
200	Silk oil-cloth and wax-cloth .....	1. 32
201	Frieze coverlet and horse-cloth .....	. 52. 8
202	Woolen wares .....	1. 08
203	Printed woolen stuffs .....	1. 40. 4
204	Bunting .....	. 30
205	Shawls and handkerchiefs .....	3. 96

Para-graph.	Articles.	Amount of duties.
		<i>Rubles.</i>
206	Unfulled woolen stuffs for manufacturing purposes .....per pound..	. 13. 2
207	All woolen carpets .....do....	. 45
208	Cape, Turkish.....do....	2. 40
209	Woolen works.....do....	. 66
210	Cotton weaving, as per all points, with the addition of 10 per cent.	
211	Cotton weaving, printed, as per all points, with the addition of 10 per cent.	
212	Cotton velvet.....per pound..	. 55
213	Cotton goods .....do....	. 44
214	Tulle:	
	As per paragraph 1.....per pound..	. 54
	As per paragraph 2.....do....	2. 64
215	All laces .....do....	8. 96
216	Cotton weaving of Turkish production.....do....	6. 6
217	Cotton weaving mixed with silk, and all mentioned in this section... ..do....	. 72. 7
218	Cotton weaving mixed with silk, and all mentioned in this section, Turkish..do....	1. 81. $\frac{1}{2}$
219	Cloth and linen sewed at all points and remarks, with the addition of 20 per cent.	
220	Buttons, as per I point, with the addition of 10 per cent. ; as per II and III, 20 per cent.	
221	Feathers and all mentioned in this section.....per pound..	7. 92
	And also as per remark.....do....	8. 96
222	All wares:	
	As per paragraph 1.....per pood..	2. 16
	As per paragraph 2.....per pound..	. 44. 4
223	Hats and bonnets:	
	As per paragraph 1.....per piece..	1. 20
	As per paragraph 2.....per pound..	1. 74
	As per paragraph 3.....do....	4. 88
224	Parasols, as per paragraph 1 and sticks with parasols, as per all points, with the addition of 20 per cent.....per piece..	. 48
225	Various cosmetics, with the addition of 20 per cent.	
226	Soap as per all points, with the addition of 20 per cent.	
227	Small ware, as per paragraphs 1 and 2, with addition of 20 per cent.	
228	Playthings.....per pound..	42. 5
229	Appurtenances for letters.....	40. 6
230	Real corals .....do....	8. 96
231	All weights .....per pood..	2. 64
232	Musical instruments, with the addition of 20 per cent.	
233	Mathematical instruments, with the addition of 20 per cent.	
234	Clock-works, with the addition of 20 per cent.	
235	Equipages, with the addition of 20 per cent.	
237	Beds, cushions .....do....	1. 44
238	Candles, torches, lunts, and new wares.....do....	2. 40
239	Chemical matches .....do....	2. 18. 4
240	Sealing-wax and red rosin .....do....	2. 64

NOTE.—At all paragraphs signed with a \* the raising of the duty begun on the 29th instant.

REPORT BY ACTING CONSUL-GENERAL SWANN OF ST. PETERSBURG ON SHIPPING IN RUSSIAN PORTS IN 1884.

Statistics show that the total number of vessels entering Russian ports on the European frontier were :

Arrivals and departures.		Number.	Capacity.
Arrivals:			<i>Lasts.</i>
1884.....		82, 436	4, 585, 404
1883.....		82, 874	4, 557, 015
Departures:			
1884.....		82, 680	4, 599, 427
1883.....		33, 057	4, 562, 096

It would also appear from these totals that the number of ships engaged in foreign trade were:

Years.	Arrivals.	Departures.
1884.....	10, 966	11, 055
1883.....	11, 716	11, 736

This average of arrivals and departures shows a percentage on the totals of 34 per cent. in 1884, and 36 per cent. in 1883.

The capacities, however, of these vessels show that the foreign traders have the command of freights, as seen by the increased percentage in the returns as to their capacities, which appear to be as follows:

Years.	Arrivals.	Departures.
	<i>Lasts.</i>	<i>Lasts.</i>
1884.....	2, 633, 653	2, 643, 614
1883.....	2, 732, 500	2, 719, 878

This freight average percentage of arrivals and departures formed in 1884 57 per cent. and in 1883 60 per cent. of the total trade returns.

It has also been found that the average capacities of the vessels engaged in Russian trade, from the totals of arrivals and departures, were, in lasts, as follows:

Years.	Arrivals.			Departures.		
	General.	Foreign.	Cruisers.	General.	Foreign.	Cruisers.
1884.....	141	240	91	139	239	90
1883.....	139	233	86	138	232	86

From these statistics it would appear that the average vessel engaged in foreign trade has a freight capacity more than two and one-half times greater than the cruisers engaged in similar service in Russian trade, and from the above statistics it would also appear that the average capacities of the vessels engaged in Russian trade, both cruisers and foreign traders, were a little in excess of 3 per cent. greater in 1884 than in the year 1883.

Freights under the Russian flag in 1844, as in former years, leave much to be desired from a national point of view, as shown in the returns of foreign trade during the past two years.

Arrivals and departures.	Foreign flags.		Russian flag.	
	Number.	Capacity.	Number.	Capacity.
<b>Arrivals :</b>		<i>Lasts.</i>		<i>Lasts.</i>
1884.....	9, 762	2, 412, 428	1, 234	221, 225
1883.....	10, 425	2, 531, 015	1, 291	201, 485
<b>Departures :</b>				
1884.....	9, 770	2, 419, 767	1, 285	223, 847
1883.....	10, 413	2, 517, 773	1, 323	202, 100

It would therefore appear that the average capacity of vessels engaged in foreign trade with cargoes destined to and from Russian ports was as follows:

Years.	Foreign flags.		Russian flag.	
	Arrivals.	Departures.	Arrivals.	Departures.
1884.....	247	248	179	174
1883.....	243	242	156	158

As seen from these figures and statistics it will be found that the average freight capacities of the vessels trading under foreign flags were about one and one-half times greater than those of the average traders under the Russian flag, and it would also appear from these averages that the capacities of Russian vessels engaged in foreign were about twice the capacity of the vessels engaged in cruising service.

In the cargo list of arrivals under foreign flags were the following freights:

Years.	Vessels.	Capacity.
1884.....	5,705	<i>Lasts.</i> 1,366,288
1883.....	5,816	1,350,988

Or an average percentage of the total arrivals under foreign flags as follows:

Years.	Vessels.	Lasts.
1884.....	<i>Per cent.</i> 52	<i>Per cent.</i> 52
1883.....	50	49

The departures of vessels with cargoes trading under foreign flags were as follows:

Years.	Vessels.	Capacity.
1884.....	9,737	<i>Lasts.</i> 2,356,925
1883.....	10,201	2,418,100

Or an average percentage of the total departures under foreign flags as follows:

Years.	Vessels.	Lasts.
1884.....	<i>Per cent.</i> 88	<i>Per cent.</i> 89
1883.....	87	89

A consideration of these figures will allow an opinion to be formed that the arrivals of vessels with ballast were almost equal to those of vessels with full freights. In the matter of departures the balance tends favorably to the other side; at the same time the opinion may be formed, based upon these said statistics, that the arrivals with ballast were fewer in 1884 than in the former year; also that freights were more full in the departures of vessels for 1884. However, it will be seen that the trade returns of the Empire were more important in 1883 than during the past term.

In relation to trade with foreign ports under the various flags, the proportion of vessels engaged in such service appears to have been as follows:

Arrivals and departures.	Russian flag.		Foreign flag.	
	Vessels.	Lasts.	Vessels.	Lasts.
	Per cent.	Per cent.	Per cent.	Per cent.
Arrivals:				
1884.....	76	82	49	49
1883.....	73	80	47	47
Departures:				
1884.....	90	91	88	89
1883.....	90	93	86	89

It may therefore follow from these statistics and deductions that vessels trading under the Russian flag hold an advantage, by reason of the number of voyages made under favorable conditions, as compared with vessels ballasted and trading under adverse conditions and under foreign flags.

In the various Russian seas the number of vessels arriving from abroad have been found to be as follows :

Arrivals and departures.	White Sea.				Baltic Sea.				Black and Azoff Seas.			
	Vessels.	Per cent.	Lasts.	Per cent.	Vessels.	Per cent.	Lasts.	Per cent.	Vessels.	Per cent.	Lasts.	Per cent.
Arrivals:												
1884.....	638	6	88,220	3	6,523	59	1,862,612	52	3,825	35	482,821	46
1883.....	712	6	84,536	3	6,984	60	1,467,657	54	4,020	34	1,180,307	43
Departures:												
1884.....	658	6	88,252	3	6,590	60	1,869,685	52	3,807	34	1,185,677	46
1883.....	724	6	84,746	3	7,028	60	1,468,470	54	3,984	34	1,166,657	43

During the years 1883 and 1884 it will be seen that in the matter of arrivals and departures trade in the Baltic has been slightly on the increase; at the same time it can be noticed that with the diminution of the freight capacity of the vessels engaged in the Baltic trade there has been on the other side a corresponding increase in the Black and Azoff Seas in that direction.

From the totals of vessels engaged in trade in foreign waters, the arrivals and departures of those flying the Russian flag were found to be as follows :

Arrivals and departures.	White Sea.				Baltic Sea.				Black and Azoff Seas.			
	Vessels.	Per cent.	Lasts.	Per cent.	Vessels.	Per cent.	Lasts.	Per cent.	Vessels.	Per cent.	Lasts.	Per cent.
Arrivals:												
1884.....	252	39	10,799	12	260	10	87,421	6	332	9	123,025	10
1883.....	292	41	11,024	13	690	10	86,064	6	309	8	104,397	9
Departures:												
1884.....	272	41	10,908	12	695	11	90,891	7	318	8	122,048	10
1883.....	306	42	11,367	13	738	11	89,819	6	279	7	100,894	9

It would therefore appear, from these figures, that vessels under the Russian flag hold a far more important position in the White Sea than in the Baltic, Black, and Azoff Seas.



In the various seas the number of ships engaged in carrying goods were as follows :

Arrivals and departures.	White Sea.				Baltic Sea.				Black and Azoff Seas.			
	Vessels.	Per cent.	Lasts.	Per cent.	Vessels.	Per cent.	Lasts.	Per cent.	Vessels.	Per cent.	Lasts.	Per cent.
<b>Arrivals:</b>												
1884.....	270	42	14,612	17	3,940	60	864,161	63	1,495	39	487,515	41
1883.....	316	44	15,917	19	4,028	58	868,482	59	1,472	37	466,587	40
<b>Departures:</b>												
1884.....	657	99	88,233	99	6,122	93	1,253,592	92	2,958	78	1,015,100	86
1883.....	705	97	83,089	98	6,506	93	1,344,785	92	2,990	75	990,253	85

From the above returns it would appear that trade with Baltic ports offers greater inducements and more profitable service to shipping interests than can be found in the trade with the ports of the White, Black, or Azoff Seas.

Regarding the length of time that practical navigation continues in Russian waters, excluding those ports open at all seasons, it will be found that the average in the White Sea ports was 5 to 5½ months; Baltic Sea ports was 7½ months; Black and Azoff Seas was 9½ to 10 months.

The navigation returns for the ports of St. Petersburg and Cronstadt for 1884 show the following results: Arrivals: 1,930 vessels entered the ports, of which number 1,580 carried cargoes, 933 vessels (average capacity 368 lasts) unloaded at Cronstadt, 536 vessels (average capacity 99 lasts) came with full cargoes direct to St. Petersburg, 52 vessels (average capacity 276 lasts) came through the sea canal to St. Petersburg, and 39 vessels delivered their cargoes between Cronstadt and St. Petersburg.

It will therefore be seen that the average capacity of the vessels coming through the sea canal was less than that of the vessels unloaded at Cronstadt, but still higher than that of the vessels coming direct to unload at St. Petersburg.

The departures of vessels from the ports of St. Petersburg and Cronstadt in 1884 were 1,968; of this number 1,773 ships left with cargoes, 1,010 vessels (average capacity 348 lasts) loaded at Cronstadt, 680 vessels (average capacity 111 lasts) received their cargoes in St. Petersburg, and 54 vessels (average capacity 249 lasts) loaded in the docks of the sea canal. Other vessels, 29 in number, received their freights at various places between St. Petersburg and Cronstadt; the average capacity of these vessels was 271 lasts.

From these details it will be seen that the average capacity, in lasts, of arrivals, exceeded the capacity, in lasts, of departures through the new channel.

Localities.	Arrivals, 1884.		Departures, 1884.	
	Lasts.	Per cent.	Lasts.	Per cent.
Cronstadt .....	343,417	81	851,073	78
St. Petersburg.....	55,400	18	75,206	17
Sea canal .....	14,848	3.5	13,409	3
Sundry places .....	10,296	2.5	7,852	2

The St. Petersburg Sea Canal, to which reference has been made, was formally opened on May 27, 1885. This new canal enables vessels drawing 18 feet to enter the Neva, whereas the depth of water on the bar is seldom more than 11 feet. The construction of this canal has attracted but little attention considering the importance of its aim.

The construction of this canal presented but few engineering difficulties, inasmuch as the channel was excavated through a firm deposit, and the same offered a firm foundation in the absence of tides or currents to impede operations. The dimensions of the canal, and the basins in connection with the same, are upon a sufficiently large scale to be worthy of the capital of Peter the Great.

The total length of the canal is 30 versts (19.89 English miles), of which  $3\frac{1}{2}$  versts (2.32 English miles) are branches. The depth of the main channel is 22 feet, that of the branches 20 feet and 16 feet, respectively. The width at the bottom of the channel for the first 4 versts (2.65 English miles) from the Neva is 30 fathoms, for the next  $4\frac{3}{4}$  versts (3.15 English miles) 40 fathoms, and the remaining  $17\frac{3}{4}$  versts (11.77 English miles), to Cronstadt, 50 fathoms, this latter portion being uninclosed.

Imperial sanction was given for this undertaking on June 1, 1874; however, the actual work of excavation was begun only in 1878, and the communication with the river was completed last spring.

The amount of silt excavated from the bed of the canal alone was 830,000 cubic fathoms, weighing 900,000,000 poods (14,464,281 English tons), and the cost 10,265,400 rubles. The plans were prepared and carried out by a special committee of the ministry of ways and communications, under the presidency, first, of Mr. Eurold, and, after that engineer's death, of Mr. Saloff.

In connection with the canal, it was intended to create a vast harbor, with import and exports basins, which should altogether replace Cronstadt, as far as merchant shipping is concerned, leaving that outlying port to meet the growing wants of the imperial navy, and it was presupposed that the advantages offered by such a construction would regain for St. Petersburg its fast-waning commercial status, consequent upon unfair railway tariffs and extra rates in time, money, and labor, apart from the extra risks on transshipments and lighterages to and from Cronstadt. Under the circumstances, Russia's northern capital has during late years lost much of its trade, which has been diverted to Reval, Riga, Liban, and even Königsberg. This intention on the part of the promoters and constructors has, however, only been partly fulfilled as yet.

An important basin has been constructed at the point where the canal leaves the Neva, with an area of 46,000 square fathoms, with good quays, steam derricks, and railway accommodation. It is variously said to be capable of accommodating from 15 to 35 steamers; 20 steamers is about the mark. Besides this there is the Patiloff Basin, with an area of 13,000 square fathoms, and estimated to hold some 10 steamers. The main harbor exists at present only as a vast sheet of water, of no depth, but the subsoil being clay, the question of excavation is merely a matter of time and money. It is further estimated that a large number of steamers can lie alongside the canal dikes or walls, while others will go through the Neva and discharge there at the custom-house and quay, but this latter category must as yet be very limited, and it is very doubtful if the through traffic will allow of vessels with their accompanying lighters occupying the sides of the canal.

Few undertakings in the world, probably, have met with so much

abuse as this sea canal and port. Vested interests at Cronstadt and elsewhere, the customs of the trade, the lightermen, and the great mass of interested people, have all been against it from the beginning, and many are so still. But the best authorities are on its side, and in spite of all shortcomings and want of due preparation at present, there can be no doubt that in time the sea canal will have a tendency to improve the waning prosperity of St. Petersburg, and that in the future this undertaking will be accepted as a commercial success.

JAMES V. R. SWANN,  
*Acting Consul-General.*

UNITED STATES CONSULATE-GENERAL,  
*St. Petersburg, June 3, 1885.*

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## SWITZERLAND.

In transmitting a statement of the declared exports from Basle during the year 1885, Consul Gifford writes, under date July 25, 1885:

A very noticeable decline in the exportation of silk ribbons from Basle and of watches from the consular agency of Chaux-de-Fonds has excited much apprehension among Swiss manufacturers. They naturally fear that a falling off of more than 50 per cent. in a single year indicates the complete loss of the American market at no very distant day. So far, however, as silk ribbons are concerned, this apprehension is already proved to be in a measure unfounded, for the current month shows increased exportation, and orders for further shipment are yet to be filled. Fancy ribbons are almost exclusively in demand, and it is precisely in this branch of business that American competition is least formidable. As the present fashion is expected to continue for the spring season also, it may be anticipated that business for the current year will be more favorable to the Basle manufacturers than it has been for the year that has just expired.

*Watches.*—In the matter of watches, it seems to be in fact American rivalry in the manufacture that has diminished the exportation from \$1,542,900 in 1884 to \$762,701 in 1885. If such a tendency were now for the first time observable, it would be regarded as necessarily a fatal omen. But once before the decline has been equally grave, and afterward has given place to an unexampled demand from the United States. Swiss manufacturers will therefore continue the struggle, with their characteristic courage and intelligence, and may once more succeed in recovering their lost ground.

Absinthe was exported to the value of \$9,313, and almost exclusively to New Orleans and San Francisco. It is prepared chiefly in the canton of Neuchatel, whence a slightly increased export to the United States is observable from year to year.

## AUSTRIA-HUNGARY.

*REPORT BY CONSUL-GENERAL JUSSEN ON AMERICAN TRADE WITH AUSTRIA-HUNGARY.*

### THE QUESTION OF TARIFFS.

Many intelligent business men here, who have for some years observed the effect of a high tariff upon the trade and manufactories of Austria-Hungary, fully sympathize with the revenue reformers of our own country and unhesitatingly express the conviction that the prohibitive or ultra-protective duties have proven a failure in Austria. Even the public press here begins to give voice to this conviction. Progressive politicians and journalists seem to be thankful for even the smallest favor in the direction of a reduction of the tariff. They welcome with considerable satisfaction the proposition recently advanced by a semi-official paper of Berlin to establish a Zollverein (customs union) between Germany and Austria-Hungary, providing for lower rates of duties between these two nations exclusively; in other words, a limited tariff reform to benefit nobody but the contracting parties.

It is the general opinion, however, that the American Republic should set the example of tariff reform. Whenever I take occasion to mention the high rates of duty imposed by the Government of this empire, which seem to be directed especially against American manufactures and products, I am answered invariably with a pointed and spicy criticism of our own tariff, which, as Austrian business men claim, is in many instances absolutely prohibitive. They contend that if we desire access to the markets of other nations, and a fair chance to place our manufactures and products in competition with those of Europe, we must first open our own ports and admit the world's trade upon fairer conditions. They claim especially that those articles of European manufacture should be relieved from the present tariff burden, which are the product of art, and of a civilization already counted by centuries before the United States achieved its independence. They assert that these creations of art cannot be produced in our country at the present time, and that they will never be produced there until the skilled artists in these particular branches are as numerous and as "cheap" in the United States as they are in Europe, and until art treasures and models and artistic surroundings, which give the main incentive to artistic thought and creation, are as accessible with us as they are on this side of the Atlantic.

They point furthermore to the fact that on several articles largely manufactured in both countries our tariff is considerably higher than that of Austria-Hungary.

### BOOTS AND SHOES.

For the purpose of illustration, I select the article of boots and shoes. By the tariff of Austria-Hungary the duty on boots and shoes is 35 florins in gold on each 100 kilograms (221½ pounds avoirdupois), and the unit value of each 100 kilograms is assumed to be 400 silver florins. If the unit value, as assumed, were the true measure of the real value this duty would be equal to about 10.8 per cent. ad valorem, but as boots and shoes of the finer qualities are undoubtedly of a much greater

value than 400 silver florins per 100 kilograms, it follows, that on the finer qualities of ladies shoes, for instance, the duty imposed would not amount to more than 2 or 3 per cent. ad valorem, while our own tariff on boots and shoes is 30 per cent. ad valorem.

#### SMOKERS' ARTICLES.

The next item in our tariff to which the Viennese merchant particularly objects is the duty on smokers' articles, and especially the duty on meerschaum articles and cigar cases, which is 70 per cent. ad valorem. They contend that the raw material of meerschaum is an European product, not to be found anywhere within the United States; that the skill of Austrian artists in cutting and ornamenting this raw material and shaping it into beautiful forms and designs stands unapproached by that of any other people. They cannot conceive, therefore, inasmuch as in this instance, the home talent of America cannot call for protection because it does not exist, why the duty upon these products of their exceptional skill should be so high, especially if the United States is at all inclined to favor the principle of reciprocity in its efforts to increase the exportation of its own manufactures.

To the rates of American duties on painted porcelain, or, rather, on pictures painted on porcelain, on oil paintings, statuary, ornamental bronzes, electro-plated jewelry, and on many other articles of artistic production, they object for precisely the same reasons.

These objectors, many of whom have no prejudice against American manufactures, but on the contrary are quite ready to engage in the American trade, all contend that there is little hope for a reduction of the Austrian tariff until the United States recognize the validity of these protests.

#### NEEDS OF THE AMERICAN EXPORT TRADE.

Taking things as they are and leaving all speculation as to possible or probable tariff reforms out of the question, the problem presents itself, by what means American exports can be increased. In this direction my information points to the following measures as advisable, if not indispensably necessary to accomplish the purpose, viz:

- (1) A direct steam navigation between the United States and Trieste.
- (2) A direct connection and correspondence of American banks with those of Vienna and of other principal cities of Austria-Hungary.
- (3) The establishment of sample depots of American manufactures at the principal trade centers of Austria-Hungary.
- (4) The American exporter should accommodate his terms of payment to the usage of the country where he desires to sell his wares. He should not insist upon payment before delivery and examination of his merchandise. To demand "cash with the order" is not considered "acceptable terms" in Austria-Hungary.

As to the first point, it seems to be clear beyond dispute that the importation to this Empire of American manufactures by way of England or Germany necessitates the payment of commissions, brokerage, storage, and other expenses, which all contribute to lower the profits of the Austrian consignee or purchaser, and indirectly discourage the trade; whereas if American manufactures could be imported directly by way of Trieste they could be landed and sold in Austria at a very much reduced figure.

As to the second point, it may seem strange, but it is nevertheless



true, that up to this day the American dollar is not mentioned among the quotations at the Vienna Bourse, and I presume the Austrian florin is neglected to the same extent in the quotations of American exchanges. Exchange on New York is irregular and of uncertain value, and the sale of a draft on America, even if drawn on the United States Treasury, is accompanied by an unreasonable loss in the shape of discount or charges for collection.

#### SAMPLE DEPOTS.

As regards the third point, viz, the establishment of sample depots. I desire to state, for the benefit and information of American exporters and manufacturers generally, that the proposition to establish sample depots of the principal manufactures of the country, in the large centers of trade of foreign countries, though new and untried in the United States, is not by any means a novel auxiliary to the European export trade.

At Piræus, in Greece, the "German Trade Union of Berlin" has for a number of years maintained a sample-room of agricultural machines of various use and description. An agent represents the interests of more than fifty German manufacturers, receives orders and consummates the sales.

The advocates of these depots claim that, by means of the concentration of various samples on exhibition, the opportunity is offered the purchaser not only to supply his wants more speedily, but to compare the different systems and kinds of machines with each other more conveniently than if he were compelled to make his purchases and selections by visiting the several factories, or their separate depots at the place of manufacture.

The manufacturers of Austria-Hungary have at present this same plan of furthering their export trade under consideration and discussion, and call attention to the fact that a numerous participation by manufacturers in the establishment of these sample rooms will reduce the cost of their maintenance to a minimum. They propose to call meetings of the boards of trade of Vienna, Prague, Brünn, and Reichenburg with this purpose in view, and mention machines, cloth, linen, glassware, porcelain, leather goods, pianos, furniture, &c., as proper articles for such permanent exposition.

As proper places for the location of these sample depots the cities of Constantinople, Salonichi, Piræus, Patras, Smyrna, Aleppo, Beirut, Trebizond, and some points in Egypt, as well as on the Red Sea and in India and China have been proposed. The hope is also entertained by the advocates of this scheme that the minister of commerce of Austria-Hungary will subsidize the venture.

How soon these propositions will be carried into practical execution is of course a different question. Austria-Hungary is proverbially slow in leaving beaten paths. This same establishment of sample rooms has been under consideration in this Empire ever since 1862 or 1863, and, as yet, nothing whatever has been accomplished but brave talk and flaming resolutions. Recently, however, the Austro-Hungarian Export Society has taken the matter in hand, and has sent an emissary to ascertain and report what Germany has accomplished in the direction indicated. He has now returned, and reported most favorably as to the success, particularly of the export sample depot at Stuttgart, Germany, which has already organized two branch depots, one in the Piræus, and the other at Hamburg, and the probability now is that Austria will



imitate this commercial policy of Germany with the same zeal with which it has heretofore followed in the wake of other economical measures of the great chancellor. But, however speedily and energetically, according to Austrian conception of speed and energy, this German venture may be imitated, if the merchants of America conclude to adopt the commercial measures in question, there can be no doubt that American push and American energy will, as usual, be first in the field.

The Austro-Hungarian Export Society has resolved to establish at once a sample depot at Vienna for the purpose of the permanent exhibition of all home manufactures produced for the export trade, and contemplates the establishment of similar sample rooms in the most important foreign ports, if the means of the association permit the venture and a generous participation by parties interested justifies it. As an ultimate aim the society intends the final erection of a trade museum at Vienna, through which the producers, manufacturing for the export trade, can at all times derive authentic information with reference to the supply and demand of all importing countries.

#### AMERICAN WATCHES.

Among the American manufactures which might possibly find a profitable market in Austria-Hungary I think American watches should stand at the head of the list. Watches are not manufactured in Austria-Hungary, and on examining the import statistics for the year 1883 (the statistics for 1884 have, as yet, not been published) I find that during this year watches were imported into Austria-Hungary from the following countries and in the following quantities :

Watches with gold or gilded cases were imported as follows:

Germany .....	53,521
Russia .....	3
Roumania .....	1
Italy .....	12
Switzerland .....	1,859
Via Trieste .....	303
Via Fiume and other ports .....	21
Total imported during 1883.....	55,720

For the purpose of assuming a unit value of these watches, they were rated at 30 silver florins apiece, in all 1,671,600 silver florins. The rate of duty imposed is 1 florin in gold apiece, or about 4.12 per cent. ad valorem on this unit value, which, however, is, as to gold watches at least, much below the true value. It would seem that, considering this low rate of duty and the superiority of American watches, the latter could not fail to find a profitable market in this Empire.

Watches with silver or silver-plated cases were during the period aforesaid imported from the following countries and in the following quantities :

Germany .....	181,393
Roumania .....	2
Italy .....	67
Switzerland .....	15,101
Via Trieste .....	370
Via Fiume and other ports .....	97
Total import during 1883.....	197,030

For the purpose of assuming a unit value of these silver and silver-plated watches they were valued at 10 silver florins apiece, in all

1,970,300 silver florins. The rate of duty imposed is 50 kreutzers in gold, or one-half gold florin apiece. This is about 6.2 per cent. on the assumed value, which is also much below the real value. So that the rate of duty does not seem to stand in the way of the exportation of American (either gold or silver) watches to Austria-Hungary.

Aside from these gold and gilded, silver and silver-plated watches, there were imported into Austria-Hungary, mostly from Germany, during the period aforesaid, 46,620 other watches, which do not come under either of the above descriptions, and the unit value of which was fixed at 3 silver florins apiece, and the duty at 30 kreutzers (equals 12 cents in gold) a piece.

#### WOODEN CLOCKS, ETC.

Common wooden clocks and clock works were imported into Austria-Hungary during 1883 from the following countries:

	Kilograms.
Germany.....	112,409
Roumania.....	10
Servia.....	2
Italy.....	4
Switzerland.....	68
Via Trieste.....	155
Via Fiume and other ports.....	236
Total.....	112,884

The unit value of these clocks and clock works was rated at 1 florin and 20 kreutzers for 1 kilogram net, and the duty imposed is 30 kreutzers for each kilogram net, or about 6 cents a pound. The only competition which the cheaper grades of American clocks encounter in this market are the clocks made by the manufacturers in the Black Forest of Germany.

#### EDGE TOOLS, SHOVELS, SPADES, AXES, HAY-FORKS, HOES, ETC.

Almost all the tools in use here are of a clumsy shape, and the imitations of American shapes bear the unmistakable stamp of "counterfeit" on their face. If the exportation of American tools to this Empire is pushed with energy and perseverance, it seems as if it were impossible that success should not follow in the end.

But here again an American sample depot, managed by an enterprising American, who has no other end in view than to introduce and sell American wares, would be the main condition of success.

A consignment of samples to an established Austrian business house would be almost useless. The introduction of American goods needs the concentrated energy of an American business man, of an agent who is not hemmed in by other business connections, who does not labor under a prejudice against all novelties and improvements, who has no reverence for the sacredness of old-fashioned shapes and uses, who takes no interest or part in the political and social differences between the German, Czech, and Hungarian elements of this nation, and who, in short, knows nothing of this country but its language and business demands and its opportunities for the sale of American manufactures.

The duties imposed on edge tools and other steel ware are as follows:

On common tools, as saws, planes, chisels, awls, gimlets, files, rasps, common knives, shears, and scissors, 10 florins in gold for every 221½ pounds English, net. On fine iron and steel ware, polished or enameled,

artistic and ornamental, 15 florins in gold for every 221½ pounds English; on fine cutlery, 30 florins in gold for every 221½ pounds English.

#### AGRICULTURAL MACHINERY.

Agricultural machines should also occupy a prominent place in an American sample depot, if the latter is established in Austria-Hungary. It is to be hoped that the trial will soon be made. American exporters should consider that this market is of great importance, not only on account of the demand and requirements of Austria-Hungary, but also because Vienna exporters deal largely with Russia, Turkey, Asia Minor, Egypt, and the Danube provinces.

#### MOVEMENT FOR HIGHER DUTIES.

In conclusion, I beg to call attention to the fact that the Government of Austria-Hungary during last spring submitted numerous proposed changes in the tariff to the Diet of the Empire. The proposition will probably be acted upon during next winter's session. The Chamber of Commerce of Vienna has lately nominated a numerous committee of expert merchants for the purpose of examining and reporting upon these proposed changes. As yet no report has been made. The amendments proposed provide one and all for a considerable increase of existing rates, and the arguments used to justify the increase are the well known arguments of the protectionist. They have been published in full in all the official and semi-official papers, but they need not be repeated here, as they contain nothing new. It would be a sufficient and fair synopsis of the whole argument to say that by it the Government admits that thus far the protective tariff of Austria has failed in its purpose, and, therefore, protection must be increased and continued.

There can be no doubt that all the amendments proposed will pass the Diet by a large majority. Liberal members, who, as a rule, are in favor of a reduction of the tariff, are in the minority, and the great majority of conservative members generally indorse with great unanimity all measures proposed by the Government. The small array of liberals who favor a reduction, will have to yield to the oft-repeated argument, that until other nations cease to protect their industries by prohibitive tariffs Austria-Hungary cannot be expected to adopt a different policy.

The articles hereinbefore mentioned as peculiarly fit for exportation from the United States to Austria-Hungary are not seriously affected by the proposed amendments. For the purpose of giving American exporters definite information upon the proposed increase of the Austrian tariff, I beg leave to inclose herewith a translation of the amendment in question.

EDMUND JUSSEN,  
*Consul-General.*

UNITED STATES CONSULATE-GENERAL,  
*Vienna, September 1, 1885.*

*Proposed amendments of tariff of Austria-Hungary.*

[Duty in gold florins per 100 kilograms.\*]

No. of tariff.	Articles.	Duty raised from—	
FATS.			
67	Purified paraffine.....	4 to	6
68	Fish oil.....	1	1.50
78	Vinegar in barrels.....	3	5
91	Cacao in boxes, cacao in paste, chocolate, and its substitutes.....	50	60
COTTON YARNS.			
124	Single, raw, over No. 29 to No. 50, English.....	12	14
	Double, raw, to No. 12, English.....	6	8
	Over No. 12 to No. 29.....	8	10
	Over No. 29 to No. 50.....	12	16
	Over No. 50, English.....	16	18
127	Adjusted on spools for retail.....	30	60
COTTON GOODS.			
	Wests out of cotton yarn of No. 50 or below; thirty-eight threads or less to the square of 5mm:		
	(a) Unbleached.....	82	86
	(b) Bleached.....	40	45
	(c) Dyed.....	50	55
	(d) Many colored.....	60	70
129	Common cotton goods woven on leaves or Tacquelard machines:		
	(a) Unbleached.....	40	45
	(b) Bleached.....	50	55
	(d) Many colored.....	70	80
130	Common wefts of yarn No. 50 or below, with more than thirty-eight threads to the square of 5mm:		
	(a) Unbleached.....	50	55
	(b) Bleached.....	60	65
	(c) Colored.....	60	75
	(d) Many colored.....	80	90
131	Fine wefts of yarn over No. 50 and under No. 100:		
	(a) Unbleached.....	70	80
	(b) Bleached, colored, &c.....	100	120
133	Embroidered wefts and laces.....	200	250
134	Velvets and velvet-like material, as ribbons, trimmings, and buttons.....	80	90
GOODS MANUFACTURED OF FLAX.			
	Hemp, jute, and other spinning material:		
137	Linen yarn, bleached, colored, and adjusted for retail.....	80	35
139	Ordinary black linen goods, also sacks manufactured out of same.....	2	6
143	Linen goods, over twenty warp threads to the square of 5 mm.....	40	80
146	Embroidered goods and laces.....	200	250
151	Ropes, cordage, &c., bleached or tarred.....	3	5
WOOLEN GOODS AND YARNS.			
153	Yarns made of wool or animal hair:		
	(a) Yarns manufactured out of animal hair, single or double, plain or colored†.....	8	4
	(c) Yarns not especially mentioned, raw and common: (2. Over No. 45 metrical).....	8	12
	(d) Raw yarns not especially mentioned, double or manifold twisted: (Over No. 45 metrical).....	12	16
154	(e) Bleached, printed, colored, or double yarns. 2. Over No. 45 metrical...	12	15
154	(f) Bleached, printed, colored, double, or manifold twisted yarn:		
	1. Up to No. 45 metrical.....	12	15
	2. Over No. 45 metrical.....	12	19
156	Carpets.....	40	50
158	Woolen goods, 1 square meter, weighing 200 grams or less.....	80	110
159	Velvet and velvet-like wefts, ribbons, trimmings, buttons, &c.....	80	100
161	Woolen shawls.....	150	200
SILKS.			
	Silk, reeled or twisted, raw, bleached, or dyed, interwoven with other material; also black silk.....	22	50
168	Silk laces and fichus; also silk interwoven with metal threads.....	400	500
	All half-silk goods not contained under 168:		
	(a) Velvet ribbon.....	200	400
	(b) All other half-silk goods.....	200	250
171	Artificial flowers not especially mentioned.....	170	400
172	Parts of artificial flowers.....	70	200

\* One hundred kilograms equal to 221½ pounds English.  
† Duty reduced in this instance from 8 to 4 florins.

*Proposed amendments of tariff of Austria-Hungary—Continued.*

No. of tariff	Articles.	Duty raised from—	
CLOTHING AND MILLINERY.			
175	Hats, not especially mentioned.....	½ to 1 each.	
175	The duty on clothing and millinery not especially mentioned is raised 40 per cent.		
BRUSHES AND SIEVES.			
186	Articles not especially mentioned used in the manufacture of brushes and sieves.....	15	30
PAPER AND STATIONERY.			
192	Wall paper.....	15	25
193	Moldings, manufactured out of asphalt and similar articles.....	2	5
RUBBER GOODS AND GUTTA PERCHA.			
200	Rubber hose or belts of any kind.....	12	15
207	Hard rubber goods.....	80	50
OIL-CLOTH AND OILED SILK.			
208	Oil-cloth for packing, asphaltum cloth.....	2	6
209	Wagon covers made of coarse material saturated with oil or tar.....	10	20
210	Floor coverings made of oil-cloth.....	10	15
211	Oil-cloth not especially mentioned.....	20	25
212	Oiled silk.....	26	30
MISCELLANEOUS.			
223	Upholstered furniture.....	20	30
230	Boneware not especially mentioned.....	20	50
239	Watch crystals.....	50	75
246	Common slates with or without frames.....	1. 50 to 3	
HARDWARE.			
250	Gas-pipes.....	. 80	1
253	Common wire (c) With diameter less than ¼mm.....	5	6
267	Nails.....	6. 50	7
269	Common carpenters' tools, cutlery, and agricultural implements.....	10	12
270	Scraps of all kinds.....	15	20
305	Clocks and clock-works.....	50	75
310	Ivory or goods manufactured thereof.....	100	150
311	Toys, &c., interwoven with silk.....	100	150
	Toys, &c., interwoven with any other material.....	50	75
315	Embroideries on various materials not especially mentioned.....	50	75

FRANCE.

MARSEILLES.

*REPORT OF CONSUL MASON ON CEREALS IN FRANCE.*

In the following report is presented a review of the harvest of cereals during the season of 1885 in the consular district of Marseilles and the whole of France, to which are added such statistics of breadstuff importations at Marseilles during the past and preceding years, as well as of the entire imports of France, as will form a basis for estimating approximately the requirements of this port and country in respect to foreign breadstuffs during the current year.

The thirteen departments (including Corsica) which constitute the consular district of Marseilles are, in general, devoted in only a limited

degree to the production of cereals. The soil is generally calcareous and the climate subject to long and severe droughts, which, however, usually occur so late in the season as not to interfere fatally with the ripening of wheat, oats, and rye. Most of the land is owned and cultivated in small farms, which, until the phylloxera began its ravages, were devoted principally to the much more lucrative vine culture. The destruction of the vineyards, and the long period of five or six years which is required to renew them, forced the poorer class of farmers to adopt some other crop which would meanwhile yield an income, and, accordingly, the latter days of June, show the white plains and valleys of Southern France spotted and striped with fields of ripening grain; and although they cannot wholly supply the population with bread, they have, during the past ten years, sensibly diminished the annual deficit in cereals which is to be supplied by importation.

#### THE HARVEST OF 1885.

The harvest of 1885 in the district of Marseilles has been only fairly successful, as is shown by the following exhibit from each department:

Departments.	Wheat.	Oats.	Corn.	Rye.	Barley.
Basses-Alpes .....	Fair .....	None .....	None .....	None .....	None.
Alpes-Maritimes .....	Good .....	Fair .....	do .....	do .....	Do.
Ardèche .....	Bad .....	do .....	do .....	do .....	Do.
Ande .....	Good .....	do .....	Good .....	Good .....	Good.
Bouches-du-Rhône .....	do .....	Good .....	None .....	None .....	Do.
Corsica .....	Fair .....	Fair .....	Good .....	do .....	Fair.
Drôme .....	Bad .....	Mediocre ..	Mediocre ..	Fair .....	Good.
Gard .....	do .....	Good .....	Good .....	None .....	Fair.
Hérault .....	do .....	do .....	None .....	Fair .....	Bad.
Pyrénées Orientales .....	Fair .....	do .....	Good .....	Bad .....	Good.
Var .....	Good .....	do .....	do .....	Good .....	Do.
Vaucluse .....	do .....	Very good ..	None .....	do .....	Do.

#### CROPS OF FRANCE.

The cereal harvest throughout France shows a similar variety of results.

*Wheat* has been very good in 3 departments; good in 43; fair in 26; mediocre in 14, and bad in 4.

*Oats*.—Very good in 5 departments; good in 46; fair in 20 and mediocre in 15.

*Corn*, which is raised in only a small part of France, is very good in 1 department; good in 25; fair in 7, and bad in 5.

*Rye*.—Very good in 3 departments; good in 33; fair in 20; mediocre in 17, and bad in 2.

*Barley*.—Very good in 8 departments; good in 39; fair in 17; mediocre in 8, and bad in 1 (Hérault).

This exhibit of the home supply of cereals is, on the whole, so similar in general results to that of the harvest of 1884, that the importations at this port during the past twelve months may be accepted as a very close statement of what will be required to supply the deficit in this part of France during the current year.



IMPORTS OF WHEAT.

The imports of wheat at the port of Marseilles from July 1, 1884, to June 30, 1882, were as follows :

Countries.	Hundred-weight.	Countries.	Hundred-weight.
Russia.....	5, 079, 364	Australia.....	28, 406
Roumania.....	438, 147	Morocco.....	89, 548
Turkey (Europe).....	543, 944	Tunis.....	8, 896
Turkey (Asia).....	277, 217	Italy.....	14, 244
Egypt.....	292	Corsica.....	170
Greece.....	4, 206	Algeria.....	1, 008, 644
East Indies.....	1, 982, 112		
The United States.....	492, 576	Total.....	9, 998, 191
South America.....	30, 426		

That the sources of supply have changed with the varying harvests and other controlling circumstances will be shown by the following table, which exhibits

IMPORTS.

The total imports of wheat at Marseilles, by years, from 1873 to 1883, inclusive, were as follows :

[In hundred-weight.]

Countries.	1873.	1874.	1875.	1876.	1877.	1878.
Russia.....	4, 781, 763	4, 449, 051	5, 194, 541	3, 142, 970	1, 740, 720	10, 166, 897
Austria.....		2, 017		14	66, 148	94, 000
Spain.....	1, 154, 721	438, 687	21, 049	1, 069	4, 533	6, 681
East Indies.....		218, 920	207, 066	407, 069	142, 201	100, 948
Italy.....	346, 860	94, 829	102, 843	63, 742	293, 289	154, 636
Barbary States.....		798	3, 575	650	185	3, 748
Turkey.....	} 3, 604, 812	2, 610, 517	1, 765, 539	3, 911, 657	2, 179, 624	1, 343, 610
Roumania.....						
Egypt.....	61, 149	4, 032	21, 724	38, 510	12, 150	132
Algeria.....	1, 367, 427	1, 273, 766	695, 498	981, 827	773, 685	181, 264
United States.....			39, 924		87, 904	631, 168
Other countries.....	9, 931	4, 054	703	98	8, 447	5, 264
Grand total.....	11, 326, 723	9, 096, 671	7, 991, 562	8, 547, 606	5, 308, 886	12, 688, 343
Flour.....	288, 116	86, 503	10, 962	13, 309	32, 807	5, 232

Countries.	1879.	1880.	1881.	1882.	1883.
Russia.....	7, 688, 825	6, 003, 289	3, 584, 718	5, 226, 000	4, 861, 619
Austria.....	14, 183	18, 994	45		
Spain.....	2, 390	15, 829	38	8, 484	
East Indies.....	25, 709	708, 197	2, 428, 191	3, 232, 815	2, 948, 896
Italy.....	120, 683	409, 006	247, 140	117, 852	133, 695
Barbary States.....	2, 455	16, 837	27, 309	5, 067	32
Turkey.....	} 2, 163, 181	} 662, 608	1, 109, 112	} 1, 560, 990	} 2, 584, 561
Roumania.....					
Egypt.....	101, 701	330, 435	39, 236	75, 726	31, 787
Algeria.....	423, 390	1, 333, 281	636, 217	526, 984	266, 557
United States.....	998, 155	1, 567, 169	1, 060, 381	1, 106, 648	787, 583
Other countries.....	41, 809	765, 410	1, 054, 762	87, 643	133, 104
Grand total.....	11, 582, 481	11, 831, 055	10, 188, 149	12, 623, 969	12, 797, 139
Flour.....	20, 951	34, 805	34, 130	56, 230	18, 223

## AMERICAN WHEAT.

It will be seen that in all this vast process of supply the United States has played a less important part than would be naturally inferred from its high rank as a grain-producing country. As far as concerns the period under consideration, the importation of American wheat at Marseilles began in 1875, rose to 1,567,169 cwt. in 1880, and has since steadily declined. This decline has been due to several facts, among which the foremost are the close of the Russo-Turkish war, which opened the wheat ports of the Black Sea to the Mediterranean commerce; the steadily increasing competition of India and Australia, and the fact that the people of Southern France use very little of the higher grades of white wheat and flour. Such as is used for pastry and the finer qualities of bread is supplied almost wholly by the *Tuzelle* or white wheat of Provence and Algeria, while the only American grade that is handled here to any extent is Red Winter No. 2.

Until last winter France imposed an import duty of 12 cents per 220 pounds on wheat; this rate has since been increased to 60 cents for the same weight.

## IMPORTS AND HOME PRODUCTION.

The imports of wheat at Marseilles for each year since 1874 are herewith placed for convenient reference side by side with the home product of wheat throughout France for each year during the same period. This shows readily the relation between the domestic harvests and the importation of wheat at this port.

Years.	Importation at Marseilles.	Home prod- uct.	Years.	Importation at Marseilles.	Home prod- uct.
	<i>Qwt.</i>	<i>Qwt.</i>		<i>Qwt.</i>	<i>Qwt.</i>
1874 .....	9, 096, 671	202, 548, 033	1881 .....	10, 188, 149	147, 290, 042
1875 .....	7, 991, 562	153, 108, 752	1882 .....	12, 623, 969	185, 847, 861
1876 .....	8, 547, 606	145, 204, 887	1883 .....	12, 797, 139	157, 853, 427
1877 .....	5, 308, 886	152, 364, 454	1884 .....	8, 562, 963	173, 794, 272
1878 .....	12, 688, 343	144, 947, 562			
1879 .....	11, 582, 481	120, 734, 282			
1880 .....	11, 831, 055	151, 338, 871			
			Total.....	111, 218, 824	1, 735, 032, 443

The now demonstrated success of the American grape-stocks in resisting the phylloxera is gradually withdrawing the arable land of Southern France from miscellaneous crop-raising and restoring it to vine culture. It is only those who cannot afford to lose the product of their ground for several consecutive years and the few whose fields are not adapted to grape-growing who will long persist in raising grain. It may therefore be expected that the domestic wheat product of France will diminish and her yearly need of foreign breadstuffs will correspondingly increase.

FRANK H. MASON,  
*Consul.*

UNITED STATES CONSULATE,  
*Marseilles, September 5, 1885.*

**BORDEAUX.****REPORT BY CONSUL ROOSEVELT ON THE WINE HARVEST IN THE DEPARTMENT OF THE GIRONDE.**

After a cold late spring, followed by a cold summer, proprietors were doubtful of a good wine harvest until the latter part of July, when the heat became strong enough to cause the grapes to swell and retard the progress of the oïdium, mildew, and anthraxnose. Unfortunately this favorable condition of weather did not continue, but was interrupted by a violent storm, accompanied by hail, which did great damage and caused the mildew to renew its ravages. The warm weather coming on immediately after this storm maturation rapidly progressed and hopes were revived that the yield, although not up to the average, would at any rate equal that of 1884. Again heavy and continuous rains fell upon the vineyards, and in consequence the different plagues increased in their work of devastation, especially the mildew, which is more dreaded at the present moment than the phylloxera, as it attacks all vines, not even the hardy American vine escaping its ravages. All through the Médoc loud complaints are heard against it, and in some districts the leaves are stripped from the vines by this disease, leaving the grapes exposed, and fears are entertained that they will be burned and scorched through exposure to the sun.

At St. Estephe the vines this year have very nearly escaped this plague, and those which are untouched are very fine. The increase of the mildew is caused by the excessive rains, which prevent the vine-growers applying sulphur to the vines, and frequent sulphuring from the bottom to the top of the vine arrests the progress of this plague. At this date it is safe to predict that the vintage of 1885 will be less than that of 1884 and fall considerably below the average. The indications, however, point to a fine quality.

The phylloxera steadily goes forward on its march of devastation, and its deadly mark may now be seen in the midst of flourishing vineyards. There are also the undeniable signs of anthraxnose and mildew in vineyards that last year were free from any of these plagues.

With so many forces at work to destroy these beautiful vineyards, it is only a matter of time when France will have to concede her right as the leading wine productive country to some more fortunate land.

GEO. W. ROOSEVELT,

*Consul.*

UNITED STATES CONSULATE,

*Bordeaux, September 15, 1885.*

**ITALY.****PALERMO.****REPORT BY CONSUL CARROLL ON AMERICAN AND RUSSIAN PETROLEUM AT PALERMO.**

As a matter of interest and one that may affect the interest of a large and important element in the United States, I announce that the first consignment of Russian petroleum to Sicily arrived here yesterday, consigned to Messrs. Carlo Wedekind & Co., importers of American petroleum. While this consignment is the first which has been made to

Sicily, Russian petroleum has been imported into nearly all the important towns of Italy, as well as of Europe, if an advertisement in a daily paper of this city can be relied upon. Those interested assert that Russian oil is both superior and cheaper than the American article.

Up to a day or two since American petroleum was sold at about \$4.20 a case. Now it has fallen to \$3.47 a case. Russian petroleum is advertised at \$3.44 a case, or only 3 cents below the American. A case of American oil contains two tins, in each of which are about 5 gallons. The Government and municipal duties on each case amount to about \$2.42. The Russian oil is exported in cans and tins similar to those used for the American article.

The value of American petroleum imported into Palermo during the year 1884 was \$247,092. The value of that imported in the present year is somewhat higher.

PHILIP CARROLL,  
*Consul.*

UNITED STATES CONSULATE,  
*Palermo, September 2, 1885.*

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**REPORTS**

**FROM THE**

**CONSULS OF THE UNITED STATES**

**ON THE**

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**CONSULAR REPORTS**  
**ON**  
**COMMERCE, MANUFACTURES, ETC.**

No. 58--NOVEMBER, 1885.

**RUSSIA.**

*REPORT BY ACTING CONSUL-GENERAL SWANN ON THE DOMESTIC INDUSTRIES OF  
RUSSIA.*

**SOURCES OF INFORMATION.**

In compiling statistics of any given manufacture, trade, or branch of industry in Russia that has not previously received official recognition or undergone special investigation, reliance has to be placed upon the returns compiled and published at rare intervals by the department of trade and manufactures. This department has in a like manner to rely mainly for its information upon the returns of local statistical committees, and these returns are in all instances based upon details unwillingly tendered and grudgingly given by reason of the general distrust of the informants to the official department employed in such collective service.

At the same time it must be taken into consideration that such reports as have been issued by the department of trade and manufactures have generally more of a fiscal than statistical interest. However, to the compiler such scant evidence as bears at all upon the subject at issue must be accepted with gratitude in the absence of other or fuller information. It is the only source from which material for compiling industrial statistics can be obtained, unless consideration be given to a few disconnected and occasional special local reports, of defined interest and limited consideration.

As already intimated, the department of trade and manufactures has to rely implicitly upon the local authorities, they transfer such duties to the police, who in turn depend themselves upon obtaining the needed information from manufacturers, tradesmen, and others, who are the employers of labor. Certain printed forms are annually presented for this statistical information.

Manufacturers, tradesmen, and others whose annual output or manufacture is not less than 2,000 rubles (\$1,000), are by law morally bound to give categorical replies to certain stereotyped queries and interrogatories, made upon the face of the forms supplied for the purpose, and intended

to be more or less in the nature of a trade census. These forms are distributed and subsequently collected by the police. The forms are the same for every department, and are most ingenious in their typographical application to all manufactures, trades, and industries, whether of town or country, throughout the Empire.

The responsibility for the distribution of these forms, as also for the compilation of the information obtained, devolves upon the local authorities, who are supposed to give disinterested and gratuitous service.

These forms, when filled in and certified, are collected by the police and handed in to the local provincial or district statistical committees for supervision or arrangement. This does not necessarily mean for verification, inasmuch as such a task is much beyond the capacity of the average member employed in such service—clerks, writers, &c.—whose remuneration, as a rule, does not exceed 15 to 25 rubles (\$7.50 to \$12.50) per month.

The categorical arrangement or subdivision of these returns being determined in the first instance, the statistical result of each local or district committee is forwarded to a governing committee of the province for general analysis, and from thence is transmitted through the governor of the county or state to the department of trade and manufactures for reference, but not necessarily for publication.

The disadvantages under which the department of trade and manufactures labors in obtaining information for statistical material or data from such returns submitted may thus be summarized:

#### NATURE OF THE RETURNS.

The general nature of the replies vouched for by the average manufacturer, tradesman, or other employer of labor is governed by a desire to ignore if possible the queries submitted, in the full belief that the information asked for has some underlying relation to future fiscal measures or administrative demands. In consequence of this prevailing opinion, the general tendency is to underrate and depreciate the industry and its output. And the novelty of Russian statistics is comprised in the fictions based upon facts; for neither in the matter of numbers of workmen engaged, nor in the output, nor totals of manufacture, can any reliance, other than from a pessimistic point of view, be placed upon the greater proportion of these returns.

Every endeavor has been made by the department of trade and manufactures to overcome this feeling of suspicion, insecurity, and distrust on the part of manufacturers and others who are the employers of labor, unfortunately without success. Furthermore, matters are not improved by the fact of the police being engaged in this service.

The greater proportion of the replies given show an utter absence of all interest in the department's desire to obtain reliable information, as also a most perverse misunderstanding regarding the nature of the queries submitted. Many of the manufacturers, in giving the number of the workmen engaged, merely define those individuals who actually reside upon the premises, and thus totally ignore outside or occasional labor, or those peasants or others who furnish aid and materials from domestic or home sources. The queries as to age or sex seldom meet with consideration. In the matter of receipts from manufactures, &c., some returns show merely the minimized profits and even losses, with no information whatever regarding costs, either of wages paid or of the materials employed. At least 50 per cent. of the returns proffer lump sums, and altogether ignore details.

However, it has long since been accepted by the department that, in nine-tenths of the returns, the tendency to err lies in a given direction—viz, to the general undervaluation and discredit of the industry in question, and not, as in other countries, where the errors, if any, lie in an entirely opposite direction.

It must be fully understood that these trade returns made to the department of trade and manufactures relate only to trades and manufactures, and do not as a rule include those domestic industries or supplementary occupations based upon the labor of entire families, and conducted during the long winter term, when the peasants are not engaged in agricultural or other outdoor pursuits.

#### HOUSE INDUSTRIES.

Many of these industries are hereditary, and have been transmitted from generation to generation. Ordinarily these domestic industries are governed by, and are dependent upon, local circumstances and conditions, and are, as a general rule, connected with such agricultural or other products as the localities produce in especial quality or quantities.

In connection with this matter it is desirable that the resources of Russia, from an industrial point of view, be briefly considered, in order that the conditions governing the industrial, apart from the manufacturing, interests of the Empire be fully understood. The more especially is this necessary, as these domestic industries are but seldom met with in the returns made to the department of trades and manufactures. Not that the department is unwilling to give such industries and occupations full consideration; in fact, it is only too anxious to obtain details and data of such auxiliary employments. And it generally happens that when the peasant is called upon for general explanation by direct interrogation as to the nature of his home labors, he either ignores or else utterly denies all interest in his home calling.

Under ordinary circumstances, and outside of Russia, Sweden, Norway, and some parts of Germany, "industry" and "manufacture" would be synonymous terms. From a statistical point of view, such an acceptance would fall sadly wide of the mark if applied to Russia in a general sense. The Russian domestic or home industries, in their general bearing, form a subject of wide and deserving interest but little known. It is advisable that manufacturers and others abroad should learn earlier rather than later the nature and scope of this busy underlying element which so specifically affects their interests and commercial relations with this Empire.

It is with this house, or home, industry of the community in Russia that the home manufacturer and the foreign importer have to compete. These industries, which have an all-absorbing interest for Russia, may be briefly described as supplementary occupations, and the domestic artisan engaged in such supplementary occupation is known as a "kustar."

These domestic industries of the peasant and his family are firmly established throughout the Empire. For the most part primitive and mostly accidental, being determined by local circumstances, they are at all times crude, oftentimes hereditary, and in general dependent upon obsolete and almost primeval appliances for their working. Notwithstanding such disadvantageous conditions, the labor of the kustar is for Russia one of its most reliable sources of industrial wealth; for this undeveloped germ, as it were, alone and unaided, fully suffices to meet the wants and supply the needs of the commonalty of the Empire

From time immemorial the home labor of the Russian peasant and his family has been associated with regions outside of what is known as the black-earth or agricultural zone, and in later times such industries have penetrated even to the southern governments of the Empire.

In Russia, even at present, it is most surprising, even in the face of every-day proofs and facts, to find how very devoid of interest to the general public is a knowledge regarding the extent and influence of these home industries upon the domestic economies of the Empire.

To the general outsider the world of the kустar is a hidden and unexplored sphere, which has been from all times, as it is at present, invisible to the statistician. Its working is devoid of all the belongings that appertain to ordinary manufacture and even commerce, and is altogether apart from association with many-storied buildings and smoky surroundings. Alone and unaided it diligently strives, and perhaps thrives, often located in spots far from the source of supply and of demand. Humble are these silent workers in their diligent solitude, scattered and unaided; yet found in almost every peasant home throughout the length and breadth of this mighty nation.

In some districts certain branches of this industry have lost their primitive and patriarchal form and become communal in the transitory stage to manufacture. But such instances are rare. The hunter for big gain in his wanderings finds these industries in every homestead where he rests. But not so the statistician; for outside of cities and towns and apart from busy surroundings and commercial associations his indications and landmarks vanish.

So little interest is felt in these domestic industries by travelers and others in the Empire, and so little is heard of these latent resources in general communications from Russia, that it is in no way surprising false impressions are prevalent abroad regarding Russia's internal domestic resources from an industrial and commercial point of view. Even in the cities and towns of Russia the general resident—and more especially the foreign one—seems to be totally unaware of the existence of, let alone the actual circumstances governing, these home industries. And in the face of what may be termed unintentional ignorance, the fact is seemingly ignored that the kустars of Russia, by domestic industries alone, furnish the stores from which the commonalty entirely, and the *haute monde* generally, of the Empire meet their wants.

Thus the wares of the kустar furnish St. Petersburg, Moscow, and all other towns with their requirements; and the stores of all dealers contain, as a rule, absolutely Russian products. The kустar fills the stores with boots, shoes, &c., at a first cost absolutely beyond ordinary comprehension, and foreigners, as a rule, find it impossible to understand how such articles can be supplied at the prices. In Kimri a pair of calf-skin shoes can be purchased wholesale for 90 copecks—45 cents.

Cutlery made by the kустar has long since surprised Sheffield manufacturers by the seemingly ridiculous and ruinously low prices at which they are retailed; and hardware of all kinds from such domestic sources is to be found in heaps in the stores of all dealers in such wares. This cutlery holds its sway even in the markets of the East, and finds its way in all these regions even to the borders of China.

Domestic utensils, and other wares in metal, porcelain, china, earthenware, glass, &c., are supplied by the kустars in overwhelming quantities, at prices that prohibit home and foreign competition. The stagnation in the home industries and manufactures in Russia proves fully that the domestic source alone is more than equal to the demands of the commonalty of the Empire, or the wants of all the Russias.



In textile productions the extent of such industry is shown in the output of domestic weavings in seven governments, where this industry is general, and the value of the output in 1881 was 45,000,000 rubles (\$22,500,000). The manufacture of textile products necessarily gives employment to a mass of kустar population, and these industries are by no means on the wane, in spite of the number of manufactories, with which the kустar seems fully able to compete.

In articles of toilet and luxury, such as brocades, silks, velvets, lace, &c., the kустar takes exceptionally high rank and deserving honors, and the merits of such productions are proverbial in Europe. Velvets made by the kустar command high prices, and are oftentimes sold at 9 rubles (\$4.50 per yard). Many kустarian industries are carried on in districts where manufacturing interests are most extensive.

In the six governments of Tver, Yaroslaff, Moscow, Riazan, Orel, and Toula, in 1881, there were 27,958 lace-makers engaged at their homes. The quantity made was about 625,000,000 yards, valued at 1,950,000 rubles (\$975,000).

In the manufacture of carpets the women, in the southern governments of Russia, have for decades been experts in such workings. The filigree work of the ancient Italian silversmiths is still hereditary in Nijni-Novgorod, and the religious icons of the Russians are well known throughout Europe and the East for their artistic merit; also, from domestic sources can be found the expensive and highly artistic lacquered wares in papier-maché; also, the carvings of the kустar in wood and bone rival the Swiss and Norwegian wares in merit, delicate tracery, and cleverness of execution, though they lack originality.

It is noteworthy to remember that in the interior of Russia the stores are entirely filled with articles of Russian manufacture to the almost exclusion of imported wares. *All and every article necessary in peasant life and the commonalty is supplied by domestic industries.* From these industries come the quantum of supplies for the needs of ordinary days in Russia, commencing with a bast or linden sandal, or a nail or wheel, and ending with sumptuous articles of luxury and art.

As a rule, in the output from these domestic industries, the articles mostly in demand for use among the commonalty are crude and but half developed. But, at the same time, it must not for one moment be accepted that skill or science is always and altogether wanting in the labor of these domestic artisans, for in these industries wherein precious metals are employed, the technical and chemical skill at the disposal of the kустar recovers that which in more civilized hands would remain as dross. At the same time it must be acknowledged that in most instances the lack of modern information, coupled with the want of capital, and also the unnecessary concentration of similar industries in the same district are ruinous obstacles to successful kустarian development.

To those who have given this subject but cursory consideration, it would appear at first glance that these home industries must ultimately succumb to manufactures; and that by virtue of sheer might these small occupations and undertakings will in time be gradually absorbed by the more complete technical and scientific processes consequent upon the economy of manufacture.

Without doubt Russia's industrial future lies in the realm of manufacture, and such an aim has long since been the goal of Russia's ambitious desire. However, this grand idea of development, considered in its relation to the kустar, is associated with such a phalanx of obstinate facts and conditions, in immediate connection with the aim at issue, that severance is impossible, and it is to these unfortunate surroundings

which bear so heavily upon the social, economical, and domestic interests of the commonalty of the Empire that attention must be drawn.

#### PEASANT INTERESTS OF THE EMPIRE.

The first consideration must no doubt be given to the fact that the internal relations of Russia from an economical point of view are more or less dependent upon peasant interests, which said interests, in a like manner, are based upon agricultural pursuits. Under ordinary circumstances the peasant interest develops almost 85 per cent. of the total returns of the Empire. In 1880 peasant holdings formed 27.4 per cent. of the total area of the Empire—120,589,175 desiatines (325,585,372 acres). A consideration of such ordinary data serves to give the needed explanation regarding the development, as also the tenacious survival of many of these home industries and occupations under adverse circumstances and at the same time to place the social, domestic, and economical life of the kустar in a fairly lucid light.

Under ordinary circumstances and conditions, the labor of the peasant in agricultural pursuits does not engage more than one-half of the time at his disposal (in the government of Vladimir five months, and in the government of Tamboff six and one-half months), leaving him more or less free for the remainder of the year. It can, therefore, be understood how, under such conditions, the agricultural community have endeavored to introduce auxiliary domestic industries to occupy the time, and to meet the pressing wants consequent upon the force of such untoward circumstances.

During many decades the peasants were engaged solely in agricultural pursuits. As long as such employment sufficed to meet actual needs, but few peasants in the community combined domestic industries with their agricultural avocations. But with the increase in the population came a corresponding increase in the demand for absolute necessities, which had to be met either by improved tillage and consequently increased receipts from that source, or else by obtaining and developing larger arable areas. The primitive methods of working were still retained, and increased holdings were not forthcoming; consequently, by virtue of sheer necessity supplementary occupations had to be improvised to make ends meet, resulting in the inauguration of the house and home domestic industries.

The obstinate adhesion to obsolete patriarchal principles in the cultivation of peasant holdings still continues and is almost general. And as far as the agricultural community is concerned, such dogmatism is likely to embitter results for many decades. Unfortunately for the Empire and the peasant, agriculture cannot be governed by communal rule, nor can principles be instilled by example. The honest and laudable advice constantly given by the authorities in their humane endeavors to ameliorate the peasants' method of procedure is persistently ignored. At the same time the results are far from being disheartening to the authorities.

Under general circumstances the produce of the soil does not provide for actual wants; consequently, the peasant has to search for supplementary occupation or employment outside of agricultural pursuits. His time is barely half occupied; his village in its limited needs does not offer facilities for retaining his services; the district is already provided with its blacksmith, or cooper, or wheelmaker, as the case may be. Therefore surplus blacksmiths, coopers, and wheelmakers must find markets for their productions in distant localities.

If the village is so situated as to preclude the possibility of finding a ready market for the sale of his wares, the *kustar*, as a rule, takes up his abode at a distance, forsaking agriculture and domestic occupation in favor of some constant employment in service, or otherwise is no longer a *kustar*. As a rule, however, the mass of the agricultural community has been accustomed during generations to rest idly as long as circumstances did not compel them to undertake remedial measures. Whenever conditions are favorable—when the village lies in a populous neighborhood, or near towns within easy communication—the peasant works at home, his labor usually being determined by the facilities with which the raw material can be obtained by the chance of commissions for his wares on the spot or of a ready sale at a near market. Where there are woods, industries having an outcome from such material necessarily follow; soils also determine the location of earthenware and pottery occupations, as also does the occurrence of ores determine where metallurgical industries should prevail.

## VALUE OF PRODUCT.

From what was known in 1881 it appears that including Circassia, the number of *kustars* engaged in domestic industries, weaving, wool working, metal working, and leather, apart from agricultural pursuits, was 855,000, whose annual output was valued at 218,444,000 rubles (\$109,222,000).

That this latter estimate is far too small may be judged from the fact that there has been no real statistical investigation of any of the governments of the Empire regarding the domestic industries other than the cursory examination of the Moscow government. There is every reason to believe that the number of domestic artisans of the Empire of Russia greatly exceeds 3,000,000.

E. N. Andreyeff—an authority in such matters, having spent both time and money in the investigation of this complex question—is of the opinion that the home industries of the *kustars* in Russia employ at present at least 7,500,000 souls, and his reasons are sufficiently conclusive to determine that the output of such labor, to meet the wants and needs of the commonalty of the Empire, cannot be less in value than one and a half milliards of rubles (\$750,000,000) annually.

As bearing upon this question it will be well to remember that the initiative to manufacture in Russia was taken up by Peter the Great, and during one and a half centuries the imperial authorities have not been remiss in their endeavors to stimulate and develop such undertakings, with the result that in 1882, in the fifty governments of the Empire, there were 56,900 works and establishments employing 954,970 persons, with an annual output valued at 1,126,000,000 rubles (\$563,000,000).

From these figures it will be seen that each manufactory employed on an average 16.7 persons; that the annual average value of output of each factory equaled 19,788 rubles (\$9,894); that the proportion of those employed in manufactories, &c., equaled 1.2 per cent. of the population of the Empire, and that the value of manufactures per head of population was 14 rubles 46 copecks (\$7.23).

Under such circumstances and conditions, if it be assumed that each individual employed in manufacture feeds two of the mass of unemployed, the result arrived at will be that the manufacturing interests of the Empire nourish but 3.6 per cent. of the population of Russia.

## DOMESTIC INDUSTRIES.

Of the wide and general development of these domestic industries, interesting details published in 1880 show that in the government of Moscow there were 150,000 kustars engaged at their homes. This total includes 50,000 weavers, and the value of their output alone was estimated to be 34,000,000 rubles (\$17,000,000) annually. It being fully understood that such domestic industries were altogether apart, and had no connection whatever with the numerous manufacturing interests of the Moscow government, which in 1879 contained 1,546 manufactories, &c., employing 164,500 persons, with an annual output valued at 194,964,000 rubles (\$97,482,000).

## PREPARATION OF ANIMAL PRODUCTS.

In the preparation of materials from animal products it was found that the kustar occupied a highly important position in the industrial working of the Moscow government. In 1881 there were 1,654 independent domestic establishments in this trade or occupation, giving employment to 7,974 kustars, whose annual output of products was valued at 2,914,150 rubles (\$1,457,075), grouped as follows: Leather, 291,000 rubles (\$145,500); fur dressing, 146,150 rubles (\$73,075); boots and shoes, 1,200,000 rubles (\$600,000); sundry leather wares, shoes, mittens, whips, &c., 30,000 rubles (\$15,000); hair and felt wares, 274,000 rubles (\$137,000); bristle brushes, &c., 240,000 rubles (\$120,000); bristle wares, 18,000 rubles (\$9,000); horn wares, 400,000 rubles (\$200,000); buttons, &c., 264,000 rubles (\$132,000); bone wares, 31,000 rubles (\$15,500); gut strings (musical instrument), 20,000 rubles (\$10,000).

In the neighboring government of Tver there are employed in domestic industries upwards of 50,000 kustars. One of the principal industrial occupations of the kustars in this government is the preparation of materials and wares from animal products.

## LEATHER.

In connection with the leather industry of this government, it was found that 538 kustars purchased the raw hides, &c., and the value of output of their preparations was 291,091 rubles (\$145,545). In this total was included the manufacture of 138,295 large and small tanned hides, valued at 186,371 rubles (\$93,186). The value of the raw purchases was 125,515 rubles (\$62,757), and the expenses in connection with the preparation of the same 60,586 rubles (\$30,293), being a proportion equal to 32.7 per cent. of the value of the finished product.

From these crude returns it will be seen that the tanneries conducted upon kustarian principles are not widely developed in this government, neither do they assume other than diminutive proportions. Thus, in 1881 there were 46 such domestic tanneries; of which number 25 gave employment to 352 hired laborers, or an average of 14 hired persons per tannery.

Also 21 tanneries were conducted exclusively upon domestic principles, and gave employment to 47 members of families, or an average of 2.3 to each establishment. In 1880 there were in the government of Moscow 60 manufacturing tanneries, giving employment to 1,997 persons, with a yearly output estimated by Orloff at 4,294,400 rubles (\$2,147,200).

In 1881 there were 2,580 persons employed in tanneries, whose annual output equaled 900,000 prepared hides, valued at 6,000,000 rubles (\$3,000,000). This industry has been in existence over 100 years in these parts. Its original character, however, the preparation of leather, has lost much of its domestic character, and in the greater number of instances has assumed proportions due to a more or less developed manufacture, as will be seen from information gathered in 1881, when the number of domestic tanneries competing with manufactories was but 164, giving employment to 350 kustars, with an annual output valued at 80,000 rubles (\$40,000). Results most insignificant when compared with the manufacturing interests of the same government, wherein 92 manufactories (tanneries) gave employment to 2,158 persons, with an annual output valued at 6,086,000 rubles (\$3,043,000). Orloff, in his statistics of 1879, published in 1881, gives the number of manufacturing tanneries in the government of Tver as 85, with an annual output valued at 3,340,800 rubles (\$1,670,400), and the number of hands employed 1,660.

BOOTS AND SHOES.

Of the extent and scope of the domestic industries in connection with the leather trade of these parts, it may not be out of place to remark that in the town of Kimri, every Saturday, that being the bazaar or market day, about 4,000 kustars arrive from the surrounding districts accompanied with from 20,000 to 25,000 pairs of boots, shoes, &c., for sale. In the Kimri district about 3,000,000 pairs of boots of all sorts are annually made, valued at 7,000,000 rubles (\$3,500,000). In the town of Kimri there are 4,000 persons engaged in the manufacture of boots, &c., and who call themselves bootmakers. In the neighborhood of Kimri, there are 19,400 kustars interested in this trade, whereas within the region and surroundings of Kimri there are 20,000 persons, kustars and others, engaged in the boot and shoe industry.

In 1812 an enormous quantity of boots was supplied from Kimri, for the use of the Russian army. In 1853-'55, the army contracts were executed in this region. Crimean war boots had an excellent reputation amongst the troops of the allies, and in 1877-'78 more than a million pairs of boots, up to the knee, and of government pattern, came from this district for military requirements.

Generally there are 16,000 persons constantly employed in the making of boots, &c., in the Kimri district. The method of working is almost entirely upon kustarian principles. There are shoemaking factories in this district wherein German machinery is employed, but they are of unimportant dimensions.

In the government of Varonej the number of kustars are estimated at 60,000, and the annual value of these home industries at 8,000,000 rubles (\$4,000,000). In many districts in this government the domestic industries have developed into trades, a transitory stage to manufacture, consequently the industry of the kustar has lost much of its domestic interest. At least one-third, 20,000, of the kustars in this government are boot and shoemakers, whose yearly production has been estimated at 4,000,000 rubles (\$2,000,000).

In the government of Tobolsk, the annual value of the leather manufactured by the kustar is about 2,500,000 rubles (\$1,250,000).

In the government of Viatka, where labor is exceptionally cheap, and the material necessary for tanning plentiful, the work of the kustar is seen in the output of leather wares. Thus, in the center of this industry at Sarapool, and its environs, 1,500 kustars annually make about



150,000 pairs of boots and shoes, valued at 300,000 rubles (\$150,000), as also at Viatka and in the district of Slobodsk 600 kustars make 75,000 pairs of boots annually, valued at 150,000 rubles (\$75,000).

In the government of Kalouga 1,500 kustars make boots, &c., valued at 760,000 rubles (\$381,000) annually.

#### OTHER KUSTAR INDUSTRIES.

In the government of Toula the output in 1880, from domestic sources and kustarian industries of all kinds, was estimated at 23,000,000 rubles (\$11,500,000).

In the government of Yaroslaff one commune alone, the village of Veleakoy, produces linen to the value of 90,000 rubles (\$45,000) annually.

In the government of Vladimir, the district of Pokroff alone gives employment to upwards of 10,000 domestic weavers, whose produce in woven goods is in excess of 7,000,000 rubles (\$3,500,000) annually.

In the government of Nijni Novgorod, the Simeonoff village has a yearly output of over 4,000,000 of wooden spoons, valued at 35,000 rubles (\$17,500), and the hamlet of Parloff, in the same government, manufactures cutlery for a sum exceeding 2,250,000 of rubles (\$1,125,000) annually.

In the government of Kalouga, in 1881, there were 17,372 adult male kustars, and the total value of the output from this domestic source was for that year estimated at 4,575,000 rubles (\$2,287,500). According to groups, the value of these domestic productions were as follows: Cotton weavings, 1,900,000 rubles (\$950,000); leather and boots and shoes, 840,000 rubles (\$420,000); Wood-working 700,000 rubles (\$350,000); Metal-working, 275,000 rubles (\$137,500); twine and hemp yarns, 300,000 rubles (\$150,000); woolen cloths, 157,000 rubles (\$77,500); prepared sheep-skins, 210,000 rubles (\$105,000); and gold-beating, 200,000 rubles (\$100,000). In 1879, in the government of Kalouga, there were 799 manufactories, employing 14,339 persons, and the value of output from this manufacturing source was estimated at 12,240,000 rubles (\$6,120,000).

#### HAIR AND FELT.

With the labor of the kustar in the preparation of leather will always be found associate industries. Thus the preparation of hair and production of felts, &c., are always part and parcel of the rigorous economy necessary to develop that which otherwise would be waste material. In Circassia the working of hair in two districts (the names of which have unfortunately been erased from my notes) gave in 1881 employment to 43,000 persons, the value of whose output was 2,235,000 rubles (\$1,117,500) annually. In the government of Moscow, 700 kustars produced felt wares, valued, in 1881, at 75,000 rubles (\$37,500). In this government the total output of all kustars engaged in the hair and felt industry equaled 274,000 rubles (\$137,000). In the government of Tver, 1,400 kustars make felt wares valued at 100,000 rubles (\$50,000) annually. Besides this number, about 6,700 kustars find occupation in this special industry during the winter months and away from their homes. The kustar who searches for and undertakes work at a distance from his village is known as a "wanderer." In the government of Vladimir 3,000 kustar felt-workers are wanderers, and find employment and occupation in other governments. But 91 kustars located in the villages annually produce felt goods valued at

100,000 rubles (\$50,000). In the government of Viatka there are about 2,150 kustar felt-workers; the greater number, however, are wanderers, and leave their homes to work in the districts of the Ural.

In the villages of the government of Viatka felt wares are annually produced to the value of 50,000 rubles (\$25,000). In the government of Voldai there are 200 resident felt-workers, while many others leave the district and are professional wanderers. The value of felt goods made in this government, is estimated at 20,000 rubles (\$10,000) annually.

#### WEAVING.

One of the most interesting groups in the list of domestic industries in Russia, and one that is most easily found by the wayfarer, is that of weaving and the production of materials from textile products. This industry gives employment to the greatest number of domestic laborers, the larger proportion of whom are females. The scope of this industry is not easily defined, commencing as it does with cheap cotton weavings at from 9 to 12 copecks ( $4\frac{1}{2}$  to 6 cents) per yard, and running to velvets at 8 and 9 rubles (\$4 to \$4.50) per yard.

In some districts weavings are conducted by families under most adverse circumstances, as is the case when the raw material has to be purchased. In the greater number of instances, however, the articles manufactured are of hemp, flax, nettle, hair, and wool yarns spun from home growths, after having undergone preliminary domestic preparation. In domestic industries of this class the products are intended exclusively for home use, and it is only under exceptional circumstances that such wares are taken to the bazaars or market. It is under such conditions that most of the home industries are conducted in the agricultural or black-earth zones, and in the Steppes.

Thus the government of Poltava is noted for its most excellent linen, and the towels woven in that region with the interwoven eagle and other patterns in red are highly appreciated and difficult to obtain. In the Tchernigoff and Kharkoff governments the patterns woven in wool are most chaste and elegant in design, as are also the various handkerchiefs and shawls produced by home industries, being evidently governed by the taste that regulates the singular harmony of the carpets, also a product of domestic industry. The dyeing of the materials for these weavings is a part of these home occupations, as is also the gathering of the various vegetable and other products mostly found in the neighborhood, and used for staining the yarns, &c.

Altogether different in character is the nature and scope of the weavings produced in the governments of Moscow, Vladimir, Yaroslaff, Tver, and the northern districts of Kalouga and Toulá, where the land is more or less sterile. The nature of the weaving has undergone a change, and has become an industry in its near approach to manufacture.

In the Tersk and Dahgestan districts of North Circassia the home weavings of cloth has developed with the increase of population, and this form of domestic industry has grown within the past decade and since the annexation of Circassia by Russia, since the women have found it possible to give to their domestic industries greater attention than was possible in the days of petty feuds and marauding expeditions, and by maintaining a greater number of sheep, &c., it has been possible to obtain the needed wools, &c., for a weaving industry. The domestic produce, which was formerly made for home consumption only, has now increased to commercial proportions, and the output commands ready sales both at home and abroad. At present women only are engaged



in the weaving of Circassian cloths, which in 1881 was represented by 42,422 domestic looms, having an output of 250,965 pieces of sundry cloths, valued at 2,007,720 rubles (\$1,003,860).

The extent of the domestic weaving industries in Russia is shown in the following output, where the value in 1881 was estimated at 45,000,000 rubles (\$22,500,000). Thus the weavings of various products by kustarian methods in the government of Moscow was 46.7 per cent., or 21,000,000 rubles (\$10,500,000); in three districts in the government of Vladimir, 13.3 per cent., or nearly 6,000,000 rubles (\$3,000,000); in the government of Viatka, 11.1 per cent., or 5,000,000 rubles (\$2,500,000); in the governments of Tver and Kalouga, 8.9 per cent., or 4,000,000 rubles (\$2,000,000); in the Rostoff district of the Yaroslav government, 6.7 per cent., or almost 3,000,000 rubles (\$1,500,000); and, finally, in the Tersk and Daghestan districts of North Circassia 4.4 per cent., or an excess of 2,000,000 rubles (\$1,000,000).

In these figures are not considered those governments where weavings are merely domestic industries for supplying the wants of the families engaged in such occupations, nor those regions where circumstances offer possible facilities for the transition of home occupation into a trade or industry and ultimate competition with manufactures. Such a development is important and far from improbable in the black-earth governments, in which materials for the preparing of hemp, flax, wool, and other yarns could be readily obtained by the peasants from their holdings.

#### CUTLERY.

As already intimated, cutlery, &c., made by the kustar has long since surprised Sheffield manufacturers by the seemingly ridiculously low prices at which they are offered at retail. Thus the metallurgical wares of Pavloffsk, government of Nijni Novgorod—more especially the commoner kinds of cutlery—are noted for their average fair quality, general good appearance, and exceedingly low price. The cutlery industry, as a domestic occupation, in the hamlet of Pavloffsk, gives employment to 6,000 families, and for decades this industry has been hereditary to all, both male and female, who could grasp a hammer or wield a file. The average wages—or receipts—of adults engaged in the making of knives and locks is from 2 to 2½ rubles (\$1 to \$1.25) per week; and even such remuneration suffers diminution. Thus, at the end of December, 1880, and in January, 1881, these low returns were diminished by 80 and 60 copecks (40 and 30 cents) per week, and the profits arising from such occupation have oftentimes fallen to such an extent that the laborer in this industry considered himself paid if recompensed for his food. In 1880–1881, at the Pavloffsk bazaar or market, common penknives cost from 50 to 55 copecks (25 to 27½ cents) per dozen; whereas in 1878–1879 similar wares found buyers at 85 copecks to 1 ruble 10 copecks (42½ to 55 cents) per dozen. In 1880–1881 the cost of living had increased, and about the same time the value of raw materials, iron, steel, charcoal, &c., rose considerably, and consequently further increased the already great misfortunes of these artificers. There have been times when those engaged have in their dire necessity sold their wares at prices even below the cost of actual sustenance.

In former times, on the borders of the Novgorod and Tver governments, there were widely-developed metallurgical industries, determined, as is the general case in kustarian occupations, by the products of the neighborhood. Even now and under most unsatisfactory conditions the iron ores found in the bog and marsh lands of these localities are developed.

## NAIL-MAKING.

In the government of Tver the labor of the smith assumes fair kustarian proportions. Thus in 1881 there were 3,047 smitheries, giving employment to 7,733 kustars. In 1,200 of those smitheries 4,402 blacksmiths and 600 women were engaged in the industry of nail-making. Bitter is the task of the nailmaker—one of the most laborious and thankless vocations in the kustarian *régime*. The hours of labor have a weird association, for the workers do not sleep, as do others, at night, nor does this occupation grant long rests from its weary toil. Sleep and nourishment are snatched during a two-hours' rest that intervenes between the changes of four hours' incessant work. Thus the day is divided into four changes. The origin of this strange custom I have not been able to learn. All of the kustars engaged in nail-making operations are haggard, ill conditioned, and most sickly looking; and more especially are such attributes noticeable in the junior workers engaged in these occupations, wherein children commence labor as nailmakers when but nine years of age.

These nailmakers, as a rule, work for task-masters—that is to say, they are, body and soul, in the hands of dealers and middlemen, who retain them at this industry under the most economical terms and conditions, by furnishing them with materials at high prices and purchasing the wares at the lowest attainable figures.

The nail-workers in the government of Tver annually produce about 80,000 poods (2,880,000 pounds) of nails, valued at 400,000 rubles (\$200,000). A single nailmaker, according to capacity, may make from 45 to 125 rubles (\$22.50 to \$62.50) during the winter.

The nails made in the government of Tver are of thirteen different kinds, divided into fifty-four sorts. The large nails, of which there are 10 kinds, vary in sizes and count from 22 to 575 to the pound; the smaller kinds, tacks, brads, &c., from 770 to 1,650 to the pound. These wares are sold at 3 rubles 80 copecks to 8 rubles (\$1.90 to \$4) per pood (36 pounds), or 5½ to 11 cents per pound. Many of these nails are consumed in the district, but the far greater proportion is retailed in other governments.

As may be imagined, this industry is on the wane, and the gradual but general increase of machinery introduced into the trade in other localities bids fair to oust the kustars at an early date. In the government of Tver the making of horseshoe-nails has already been discontinued, and the hand-worked nail industry must shortly be confined to an output of most limited dimensions.

## AXES AND EDGE TOOLS.

In the village of Mooraevna, government of Tver, are wrought by the kustars the well-known Mooraevna axes and other edge ware. The quality of these articles hitherto has been sufficiently meritorious to warrant the awards of gold, silver, and other medals and also of diplomas at several first-class foreign exhibitions. In former days the kustarian industry was largely developed, but at present the village of Mooraevna divides its labors with the hamlet of Ostashkoff, also in the same government. In the village of Mooraevna ax-making is conducted in 44 smitheries, which give employment to about 136 workmen, of which number 79 are smiths, 41 helpers, and 16 grinders. The value of a smith's labor per day at this industry varies from 60 copecks to 1 ruble (30 to 50 cents), helpers, 40 to 55 copecks (20 to 27½ cents), and

grinders from 1 to 2 copecks ( $\frac{1}{2}$  to 1 cent) per ax, and even at such prices they can make, on an average, 1 ruble (50 cents per day).

The average annual receipts of workmen at this industry cannot be estimated, inasmuch as the labor is not constant. This is not in any way caused by competition or by the influx of foreign or other wares, but is due absolutely to a gradual diminution in the local demand. When orders are few wares are oftentimes sold at half price. The resources of this neighborhood are limited, and agricultural occupation gives but poor results; besides, the kустar holdings are small; the land is also poor, and even bad. Under these circumstances the trade of the kустar has fallen—at least made its way—into more advantageous localities, and is now being developed to a great extent in the neighboring hamlet of Ostashkoff. Axes are sold in Mooravieff at 50 copecks to 1 ruble (25 to 50 cents) each.

In the hamlet of Ostashkoff the manufacture of edge tools is beginning to play an important part as a manufacturing industry. At present 402 men are engaged in the making of what may be called agricultural accessories. Thus, the Mosiagin works employ some 200 men; but kустar smiths in this district are few. In this hamlet there is a yearly output of about 30,000 scythes and 20,000 sickles valued at 15,000 rubles (\$7,500). A workman with a helper annually makes from 1,500 to 2,000 scythes and sickles.

In the government of Viatka, thanks to the iron works (8) in this region, the labor of the smith kустars is more general, and there are about 6,500 of them, employing all their spare time during the entire year. The annual value of iron and steel wares from domestic sources in these regions is about 2,600,000 rubles (\$1,300,000). The principal wares are scythes, sickles, axes, and nails; and also the smiths forge anchors, and one village has a specialty in the making of tongues for bells.

#### SADDLERY HARDWARE.

The government of Yaroslaff has from time immemorial been associated with saddlery hardware. In one district, Bourmakin, there are 829 kустars, of which number 399 are fitters and 430 smiths; and in six other villages of the same locality are 498 kустar smiths, making a total of 1,327 kустars engaged in this special line or class of goods. The value of the output from this source in 1881 was 830,000 rubles (\$415,000). In this sum is included 180,000 poods (6,440,000 pounds) of iron at 2 rubles 80 copecks per pood (\$1.40 for 36 pounds), or 520,800 rubles (\$260,400), a proportion of 52.6 per cent.; charcoal, 14,000 bags, at 45 copecks (22 $\frac{1}{2}$  cents) per bag; 5,775 bushels, 84,000 rubles (\$42,000), or 10.2 per cent.; the remaining 27.2 per cent., or 225,000 rubles (\$112,500), may be accepted as the profits of this kустar industry, which gives about 170 rubles (\$85) annually to each person engaged in such industry.

#### SMITHERIES.

In the village of Oparin (government of Vladimir) are 24 smitheries, in which 51 kустar smiths are engaged, of whom 10 are women and 4 children; the women find occupation as helpers or strikers. All these smiths have families with the exception of three laborers who are hired. The output from this source was in 1881 equal to the sum of 26,000 rubles (\$13,000). The cost of production being 7,000 poods (252,000 pounds) of iron, at 10,000 rubles (\$5,000); 4,000 poods (14,400 pounds) of steel, at 2,000 rubles (\$1,000); 5,000 bags of charcoal, 3,500 rubles (\$1,750), and

the surplus 10,500 rubles (\$5,250) were profits from this industry, giving a remuneration of 200 rubles (\$100) annually for each person engaged. Plowshares, oven forks, hinges, axes, nuts, and bolts are the principal wares manufactured, and in these industries there is constant employment.

In this district the kустar smiths are most united in their friendly unison and trade relations, and should any one of their number agree to work for a buyer, say at 1 ruble 95 copecks (97½ cents) per pood, whilst the rest of the community have fixed prices at say 2 rubles (\$1) per pood, the indiscreet one would receive from his fellow villages such unmerciful treatment as would prevent a repetition of a similar offense. The unity of action in these parts fully warrants the adages accepted in this locality, "Mutual folks are smiths," "As is one so are we all," "Not in couples, as other folks."

In the government of Kalouga 1,500 kустars are engaged in the output of similar wares, with a yearly output valued at 275,000 rubles (\$137,500). In the government of Komsk many kустars are engaged solely in the manufacture of horseshoes, and in the government of Nijni Novgorod there are many kустar file-makers. These latter productions are of deserving merit. In the government of Toula many families of kустars are solely engaged in the making of sugar cutters or nippers for cutting lump sugar into small blocks of about three-eighths square, through which tea is sipped, nut crackers, carpenters' compasses, &c. All of these minor industries are concentrated in the fourth quarter of the town of Toula, and 244 kустars were engaged in them in 1881. Of this number 169, or 69 per cent., were married men with families, and 75, or 31 per cent., hired laborers—that is to say, wanderers engaged at a distance from their homes. The value of output from this source was 110,000 rubles (\$55,000), and the annual earnings of a smith was about 180 rubles (\$90), and of finishers about 400 rubles (\$200).

In the north of Circassia iron and steel implements, such as scythes, sickles, carpenters' axes, &c., are made, but as a rule they are far inferior to Russian wares.

#### CUTLERY AND LOCKS.

In the matter of wares in which more finish is required than in the industries just glanced at, the first rank—in Russia—must be granted to the kустars engaged in the cutlery and lock occupations in the Gorbati district of Nijni Novgorod government as found in the hamlets of Pavloffsk, Vorms, and neighboring villages, also extending to many locations in the Moorom district of the government of Vladimir. In all of these regions are made an inconceivable mass of all that it is possible to imagine in the shape of knives and forks, commencing with butchers' and cooks' hatchets and weapons, boot and harness makers' cutting tools, table knives and forks and domestic cutlery in infinite variety, both in the matter of form of blade as in handles, penknives of all kinds, from the common brands at 30 copecks (15 cents) per dozen, without sides, and known as "Jews' trash" to the more complicated and expensive productions—perfect *multum in parvo*—containing twenty or more separate accessible parts and costing oftentimes 10 to 20 rubles (\$5 to \$10) each, and more. In connection with this cutlery industry is the manufacture of locks, but less widely developed, and also the making of scissors, razors, surgical instruments, and scientific implements, beams for scales, &c.

All of these industries are concentrated in 146 villages, in which are reckoned 5,127 house, or rather hut, holders. Of the number of resi-



dent workmen in the Pavloffsk (Moorom district) 8,874 work only during the winter, being a proportion of about 66 per cent. of the entire community. Whereas the number of adults working at these industries throughout the entire year was 6,817 persons, or 46 per cent., also 1,000 women, and upwards of 3,000 persons under age (from 10 to 18 years), or a total engaged throughout the year of 10,800 souls of both sexes.

That the cutlery and lock making occupation is decidedly a kustarian avocation may be gathered from the following analysis of 4,423 workmen in these parts: 3,068, or 69.3 per cent., were single; 869, or 19.7 per cent., were married men. The number of hired workmen were 486, or 11 per cent., of the total persons engaged in the industry of the district in question. It was also found that but 457 of these kustar masters employed more than 5 persons; 17, employed from 5 to 10; 9, from 10 to 50, and only 3 kustar masters had more than 50 engaged in their service.

If attention be given to the economical working of the district in question from an agricultural point of view, it will be found that of 8,057 householders in 90 villages, 55.7 per cent. of the peasant (kustar) proprietors had entirely relinquished agricultural pursuits.

The receipts from these industries are subject to the most sudden fluctuations. In what may be called good times an average cutter can, during a week's labor, make knives having a market value of 8 rubles (\$4), and a lock-maker make locks valued at from 6 to 7 rubles (\$3 to \$3.50). Under such favorable conditions it would be possible for the average cutter or lock-maker to receive for his labor about 2½ rubles (\$1¼) per week, which, at 43 weeks per year, that being the accepted condition under which labor is regulated in these parts the remuneration for his services would be say 107 rubles 50 copecks (\$53.75) annually. Unfortunately for these individuals it oftentimes happens that those engaged barely recoup themselves for the expenses of their actual sustenance.

#### LOCK INDUSTRY.

The lock industry of the kustar has seen its best days, and is gradually succumbing to the class of cheap material thrown upon the market under the name of German goods, and in the manufacture of which stamping and cutting by machinery plays an important part in the manufacture. The lower grades of these wares, most of which are made in Russia, are sold at 90 copecks and 1 ruble 10 copecks (45 and 55 cents) per dozen.

In the government of Toula 5,000 to 6,000 kustars are engaged in the manufacture of locks of all kinds, and the annual output from this source and industry is valued at from 7,000,000 to 8,000,000 rubles, (\$3,500,000 to \$4,000,000). Locks made in this region vary in price from the commoner kinds at 36 copecks (18 cents) per dozen, to the ringing door-locks at 5 rubles (\$2.50) each. In flourishing times the average earnings of a good lock-maker are about 120 rubles (\$60) annually. But these rates suffer much the same variation and are liable to similar contingencies as are the industries of the Pavloffsk and Moorom districts before mentioned.

The specialty of the Toula lock-makers is the door-lock, which is made in three types, viz: Petersburg type, a lock closed on all sides, and with a quiet movement; Moscow type, locks open on the top, bottom, and back end, and lock with a ringing sound, and Odessa type, locks open on the top, bottom, and end, as in the Moscow lock, but without the ringing movement. All of these locks are of three

kinds—those in which the exposed part is covered with a thin plate of sheet brass; those polished; and those varnished or painted with lacquer. In each sort are 7 numbers, and in the matter of door-locks alone there are 63 different types and numbers, at prices varying from 25 copecks (12½ cents) to 3 rubles (\$1.50) per lock. There are special types of this lock that run as high as 5 and even 6 rubles (\$2.50 and \$3 each). Smaller padlocks are also a specialty of the Toula kustars, in which variety there are 30 sorts, at prices varying from 4 to 50 copecks (2 to 25 cents) each. The lock industry in the government of Toula is comprised in about 300 different types and sizes, a specialty being a store or secret padlock weighing about 14 pounds and costing 25 rubles (\$12.50) each. Miniature padlocks are also made here in great variety; they are perfect examples and fac-simile in all details of the ordinary Russian padlock. About 100 of these mites go to a pound, keys included, and warranted to open and lock with facility. Such specimens of the kustar handiwork are highly prized by travelers, and command ready sales at from 50 to 75 copecks (25 to 37½ cents) each.

#### DOMESTIC HARDWARE.

In the matter of domestic hardware, such as latches, handles, staples, window-furniture, &c.; this industry employs from 2,000 to 3,000 kustars in the government of Toula, where goods of these various kinds are annually wrought to the value of two and one-half millions of rubles (\$1,250,000). Hinges in this region are also a specialty, commencing with the common brands at 4 to 10 copecks (2 to 5 cents) per pair, to the superior makes sold at 1½ to 3 rubles (75 cents to \$1.50) per pair.

#### TEA-URNS.

Also in this government there are from 3,000 to 5,000 kustars engaged in the manufacture of tea-urns—the proverbial Russian samovar or self-boiler. The value of output from this source is about five million rubles (\$2,500,000) annually. At this occupation the kustar as a rule is well paid, receiving from 35 to 75 copecks (27½ to 37½ cents) per case or form, and at such labor can make 3 to 8 roubles (\$1.50 to \$4) per week; as also an urn-spinner, with an helper at 2 rubles (\$1) per week, can make 10 rubles (\$5) at his occupation weekly.

#### BRASS AND BRONZE CASTINGS.

Amongst the many industries of the kustar in the government of Moscow is brass and iron castings. There are innumerable such foundries in the district of Bogoroditsk giving employment to 1,214 persons, with a yearly output valued at 729,000 rubles (\$364,500). Thanks to the circumstance that these kustars can recover the metal they employ from the dross sold as waste by manufacturers, they are in a position to furnish their urns at a ridiculously low price, consequently such articles have a ready sale.

These Moscow kustars are also adepts in the manufacture of triptych icons, crosses, candlesticks, brass basins, ewers, match-boxes, bells, badges, tea-table and dessert spoons, silvered and plated, with and without engraving, and the cost at which these wares are offered oftentimes raises a qualm in the mind of the uninitiated purchaser as to the honesty of the transaction. Perhaps this accounts for the ready sales.

In the Dmetrieff district of the Moscow government exists a special

metallurgical industry in which 39 kustars are engaged in the refining of dross and the obtaining of sundry metals from waste products. This industry also comprises the working up or regeneration of the refuse obtained after fires in which precious metals are known to have been present and burnt or lost. The villagers, the compatriots of these kustars, have christened these worthies spies and detectives, from the habit, a truly business one, they have acquired of diligently examining all records that relate to fires and conflagrations in general in which valuables of a metallic nature have been present. They are also known to the villagers as magpies, from their grubbing habits, though they call themselves ashmen, as also after a big haul they are not loth to assume the title of analysts and alchemists. This industry has been in successful working over 100 years in the Moscow government, and was first introduced by two serfs of the crown, who had formerly been employed in the St. Petersburg mint. In this industry about 1,000 rubles (\$500) capital is required in each of these domestic refineries, and there were in 1881 thirteen in all in the Moscow government.

#### GOLD LEAF.

Also in the government of Moscow there were 229 kustars in 1881 engaged in the beating of gold, the value of which leaf was valued at 242,000 rubles (\$121,000.) In the government of Kalouga 200 kustars make gold-leaf valued at 200,000 rubles (\$100,000) annually.

The gold is hammered between calf-skin. The average monthly wage of a gold-beater is about 14½ rubles (\$7.25). Such beaters as accept service upon condition of being fed by their employer receive on an average from 5 to 8 rubles (\$2.50 to \$4) per month or from 2 to 3 rubles (\$1 to \$1.50) weekly.

In the manufacture of foil in the government of Moscow are four kustar establishments in which 40 persons find employment. The annual output from these places is about 25,000 rubles (\$12,500). In the preparation of this foil, copper, lead, and tin are used, and in the coloring, silver paste and various dyes—which are not local. In this industry the capital invested in the business is about 1,000 rubles (\$500) in each establishment. The kustars, in this industry, generally accept service conditionally, being supplied with food. The wages under such terms vary from 2½ to 9 rubles (\$1.25 to \$4.50) per month.

#### WIRE INDUSTRY.

In the governments of Moscow and Tver there are 680 wire-drawers, the value of whose output was estimated in 1881 at 368,000 rubles (\$184,000). Several of these establishments use machinery driven by horses, and employ from 30 to 50 workmen. The adult wire-drawer may make, but not always, from 40 to 50 copecks (20 to 25 cents) per day.

In the government of Moscow there are 586 kustars engaged in four industries based upon the wire industry, viz, the manufacture—at least the making—of pins, hooks, sieves, and sundry wares, such as mouse-traps, &c. The value of their output in 1881 was 163,000 rubles (\$81,500). Consequent upon the introduction of perfected machinery these kustarian industries barely exist. In the making of pins, the person who held the wire received from 10 to 60 copecks (5 to 30 cents) daily. A hook-maker received from 60 to 100 rubles (\$30 to \$50) a year; but if working for a master who furnished him with food, then from 25 to 40 rubles (\$12.50 to \$20) was his yearly salary.



A hired kустar working for a master, and making 3,000 hooks per day, would make a profit to the master of 27 rubles 54 copecks (\$13.77) per year. These hooks being sold in Moscow at 40 kopecks (20 cents) per 1,000, and the cost of manufacture being 36½ kopecks (18½ cents), left a profit of 3½ copecks (1½ cents) daily from each workman engaged in this industry.

#### SPECTACLE FRAMES.

In the Klin and Podolsk districts of the Moscow government are manufactured steel, iron, and brass frames for spectacles. These kустar opticians also engage in the making of surgical and other instruments. In such industries, in 1881, 85 kустars made wares valued at 28,000 rubles (\$14,000). Kустars in these parts are also engaged in the manufacture of thermometers, barometers, chemists' scales, and balances; also cases for jewelers and other trades and professions. The labor of these village opticians, &c., are certainly not valued at other than most nominal rates by the trade, unless labeled—as are 95 per cent. of them—with foreign names and addresses. Thus, thermometers cost from 40 copecks to 3 rubles (20 cents to \$1.50) each; chemists' scales (weights included), from 75 copecks to 20 rubles (37½ cents to \$10) each; steel spectacle frames, 1 ruble 50 copecks to 1 ruble 75 copecks (75 to 87½ cents) per dozen; iron spectacle frames, 1 ruble to 1 ruble 10 copecks (50 to 55 cents) per dozen; brass or copper spectacle frames, 90 copecks to 1 ruble (45 to 50 cents) per dozen. The kустar engaged in these industries can, in good times, earn from 10 to 12 rubles (\$5 to \$6) per month.

#### SPORTING GUNS.

In the government of Toula 500 kустars are engaged in the manufacture of sporting guns, valued at 150,000 rubles (\$75,000) yearly. This industry cannot be strictly described as kустarian, for there are many masters who employ many hands; but, as a rule, the greater proportion of the work done is performed by the kустar at his home. The guns of Toula, in spite of rumors to the contrary, are respected for their fair average quality and extreme cheapness, varying in price from 1 ruble 40 copecks to 200 or 300 roubles (70 cents to \$100 or \$150) each; and guns even more expensive are wrought in this district.

#### EARTHENWARE.

In the operations of the kустar the manufacture of earthen and other wares of a like nature is widely developed. In the Gjelsk district, on the borders of the Moscow and Tver governments, 6,034 kустars, in 1881, made porcelain, clay, and other wares valued at 2,377,000 rubles (\$1,188,500). At such labor the yearly earnings of a kустar was about 90 rubles (\$45). In the government of Tver, 1,400 kустars produced wares valued at 75,000 rubles (\$37,500), which found a ready sale in the local markets. The average annual income of a kустar potter is about 60 rubles (\$30). Besides pottery in the government of Tver is the manufacture of fire-bricks, earthenware pipes, &c. In the government of Voldai, the kустars of the village of Tjakouski make earthenwares valued at 30,000 rubles (\$15,000) annually. One hundred and eighty-one kустars, with 312 helpers, were engaged in such occupation in 1881. There were 41 kilns—of a most primitive kind—and 140 kустars and

helpers attended to the duties of kiln service. The average earnings of an adult at such industry in this district varied between 1 and  $2\frac{1}{2}$  rubles (50 cents to \$1.25) per week, and during the six or six and a half months of the year, in which such occupation is conducted, the average kustar makes about 5 rubles (\$2.50) per month.

In the Viatka government 800 kustars find employment in pottery industries. Such kustars as are engaged by masters, under conditions that their food be provided for them, receive payment at the rate of  $1\frac{1}{2}$  rubles (75 cents) per 1,000 crocks. In these regions the yearly earnings of a kustar potter is about 50 rubles (\$25). In the village of Dimkoff, in this same government, 20 kustar families are engaged in the production of children's toys. About 100,000 such articles are annually made, and valued at 1,000 rubles (\$500). Women and children are mostly engaged in this industry. A mother, together with her children, can annually make from 35 to 50 rubles' (\$17.50 to \$25) worth of such wares. A similar industry is extensively carried on in the town of Toula, in the government of Toula, in which clay toys, mostly whistles, are made. As a rule, they are painted with water-colors. Such articles sell retail at from 1 and 2 to 25 and 30 copecks ( $\frac{1}{2}$  and 1 to  $12\frac{1}{2}$  and  $17\frac{1}{2}$  cents) each. The value of this output, annually made, in Toula varies from 40,000 to 50,000 rubles (\$20,000 to \$25,000).

In Circassia the earthenware industry is largely developed. In the districts of Tersk and Dagestan such industries are general. The speciality in such wares appears to be wide-mouthed pots and crocks, or pots with a capacity from 2 to 3 gallons. Amongst the poorer tribes such wares replace the more expensive bronze, copper, and brass wares of the affluent. The potter of these regions who has his own kiln can yearly make, at least earn, from his output from 120 to 180 rubles (\$60 to \$90).

#### LOOKING-GLASSES.

Amongst the minor industries in the government of Moscow will be found the kustarian occupation of making looking-glasses. These wares are produced by the kustar at his or her home, as the case may be, from ordinary window glass by amalgams. These wares are mostly fitted into tin frames. A thousand of these looking-glasses sell in Moscow for 40 rubles (\$20). The actual cost of manufacture is 31 rubles 40 copecks (\$15.70), which offers 8.60 rubles (\$4.30) recompense. From this sum, however, must be deducted 1 ruble 60 copecks (80 cents) for transport and freight expenses attending delivery in Moscow. It often-times happens that hired labor, in the absence of home resources, is engaged in this calling at a cost of not less than 5 rubles (\$2.50) per thousand glasses. Under such circumstances, and they are frequent, the making of 1,000 such looking-glasses, which may be placed as equal to a week's work, does not give greater remuneration than 2 to 3 rubles (\$1 to \$1.50) per adult kustar. A few years since similar wares sold in Moscow at 46 rubles (\$23) per 1,000. These were grand times, for then the kustar's weekly earnings averaged 8 rubles (\$4). Besides these common mirrors are looking-glasses of higher grades, in which small reflectors are bound, as it were in velvet, as are the larger glasses placed in wooden frames. These kustars also make pier and mantel glasses of fairly large dimensions. One hundred and one kustars were in 1881 engaged in this industry. The value of their output was valued at 29,700 rubles (\$14,850). All products from this source find a market in Moscow.

GLASSWARE.

In the manufacture of small articles or vases from glass, in 1881, 214 kustars in the government of Moscow produced goods valued at 37,000 rubles (\$13,500). The nature of this special industry was beadworking, having its origin in the glass or crystal produced in two kustar glass works in the Demetrieff district. The beads, &c., made at these works are confined to eight colors—opal, black, rose, dark red, green, blue, turquoise, and amber. In 1881 the output was 4,500 poods (162,000 pounds), valued at 11,250 rubles (\$5,625). These beads are purchased by the kustars and strung upon wires and strong twines, such wares finding ready sales among the peasantry at all fairs and bazaars in the interior and eastern provinces of the Empire. The annual receipts of two families engaged in the preparation of such articles or wares is about 200 rubles (\$100). The weekly labor of an adult bead worker is from 50 copecks to 2 rubles (25 cents to \$1), and of a female bead threader from 30 to 50 copecks (15 to 25 cents). These wares, however, are sold at prices commensurate with such remuneration. Thus, 1,000 buttons or studs cost 3 rubles (\$1.50); 1,000 necklaces, 2 rubles (\$1) and ear-rings cost from 5 to 12 rubles (\$2.50 to \$6) per 1,000 pairs.

In the making of paste or crystal ornaments in the government of Moscow 31 kustars find constant employment. At this sedentary labor a kustar may make 1,000 drops, valued at 1 rouble 60 copecks (80 cents), in a week.

Also, 9 kustars, engaged in the cutting of plate-glass, produced wares in 1881 valued at 1,680 rubles (\$840). The expenses attending such occupation were very small, 140 rubles 40 copecks (\$70.20) giving a profit equal to 1,519 rubles 60 copecks (\$759.80), or a yearly remuneration to each kustar engaged of 168 rubles 84 copecks (\$84.42).

ACCORDIONS.

In the government of Toulâ the manufacture of accordions gives employment to 2,000 or 3,000 town and country kustars. In such occupation young and old, both male and female, find employment. In this industry, as can readily be imagined, the lion's share of the profits falls to the tongue riveter and tuner; for, apart from his knowledge of the business, harmonious taste and certain musical skill are essential. Such a master kustar, according to his proficiency and industry, may make from 4 to 16 rubles (\$2 to \$8) per week, or in the working year from 160 to 640 rubles (\$80 to \$320). The case-makers, also the fitters of other parts, are about equally paid, receiving on an average from 1 to 8 rubles (50 cents to \$4) per week. The labor of the average adult kustar in such industry may be accepted as being about 180 rubles (\$90) annually. Female labor at this occupation is but poorly recompensed, being from 75 copecks to 3 rubles (37½ cents to \$1.50) per week, or, on an average, 75 rubles (\$37.50) per year.

In a country wherein the commonalty are decidedly musical it is not surprising to find that in the matter of accordions alone there are upwards of 300 different samples, though with but little variety. There is also a corresponding graduated scale of values. Instruments of this nature sell at from 5 copecks to 30 rubles (2½ cents to \$15) each. The greater number, however, are retailed at from 1 to 5 rubles (50 cents to \$2.50) each. Special accordions are made to order at prices as high as 60 rubles (\$30) and even more. Chromatic instruments are on sale from these kustarian sources, altogether devoid of special technical or

professional labor in their construction, valued at from 100 to 250 rubles (\$50 to \$125) each. The average annual output of accordions from the government of Toul'a is valued at 4,000,000 rubles (\$2,000,000), and it may safely be asserted that there is not a single instrument of this class that leaves these parts on which the kустar pure and simple has not had his or her hand. The wares of this class from this locality, thanks to their excellent workmanship and low price, meet with ready sales in Siberia and Circassia, and find their way into Tashkend, Bokhara, Persia, the confines and borders of China, and have ready sales in Turkey in Asia.

In the government of Viatka 233 adult kустars and 160 junior members of families were engaged in 1881 in the accordion industry. Instruments from this district sell at from 50 copecks to 18 rubles (25 cents to \$9) each. The average annual output of such wares from this source is about 24,000 rubles (\$12,000). An expert workman here can make yearly 77 rubles (\$38.50), and an assistant helper 10 rubles (\$5), in this kустarian occupation.

In the government of Tver there are 5 kустars engaged in accordion-making—their families are also employed—about 30 persons in all. The annual value of their output is about 3,000 rubles (\$1,500). Instruments of their make sell at from 3 to 25 rubles (\$1.50 to \$12.50) each. These instruments are mostly made to order, and are all sold in the neighborhood. An accordion costing 50 rubles (\$25), made by these kустars, had its case inlaid and was composed of 520 pieces of wood.

#### CLOCKS.

About 25 years since, in the village of Zevengorod (government of Moscow), a peasant came from Moscow and introduced in this village the making of wall clocks. At present this industry is conducted in 8 homesteads and gives occupation to 19 persons, of which number 10 are pupils or learners. The annual value of this decidedly kустarian output is about 10,000 rubles (\$5,000). This industry is conducted conditionally under mutual arrangements between those employed and the employer. Thus the adults receive their food and from 9 to 10 rubles (\$4.50 to \$5) per month, upon the proviso that a week's labor shall result in the construction of 30 clocks that do not strike, or 12 clocks that do strike. The profits arising from this industry were, in 1881, as follows: For the purchase of materials for 100 non-striking clocks, 43 rubles (\$21.50); payments for constructive labor, three weeks and 2 days, 7 rubles (\$3.50); for food, &c., 3½ rubles (\$1.75); wear and tear of tools, 3 rubles (\$1.50); expenses in taking 100 clocks to Moscow, 2 rubles (\$1); total, 58 rubles 50 copecks (\$29.25). Sale of the 100 clocks realized 65 rubles (\$32.50), and the profits arising from the transaction were 6½ rubles (\$3.50).

For the construction of 50 striking clocks, made by an adult workman in one month: For material, 49 rubles 90 copecks (\$24.95); wages, 10 rubles (\$5); food, &c., 4½ rubles (\$2.25); wear and tear of tools and delivery in Moscow, 5 rubles (\$2.50); total, 69 rubles 40 copecks (\$34.70). Striking clocks sell upon an average at 1 ruble 60 copecks (80 cents) each. Sale of 50 clocks, 80 rubles (\$40); profits of the transaction were 10 rubles 60 copecks (\$5.30).

It is interesting to learn that this state of affairs is now slightly altered, and that these clocks are now made from parts produced by machinery. The machinery is also of kустarian manufacture. This allows kустar competition to be conducted on fairer terms with imports of Swiss and German industry.



## PAPIER-MACHÉ WARE.

In the government of Moscow is the manufacture of the well-known and highly appreciated lacquered papier-maché wares. In this industry, in 1881, 27 kustars work on their own account, and also employ 17 families, who are their neighbors. Altogether there are 170 persons employed, consisting of 87 married kustars, and 43 hired kustars, who live apart from their families and homes, though most of them come from the district. The average annual value of these wares is about 85,000 rubles (\$42,500). About half of this total falls to the share of the well-known Lakootin, whose forefathers established this industry in 1780, and at that time made snuff and tobacco boxes of round form with cap lids. In 1812 an impetus was given to this industry by a knowledge of the fact acquired that Napoleon's officers and troops in Moscow had snuff-boxes of different form to the shapes then made, and the introduction of the hinged lid and more convenient oblong and other forms led also to deviations and improvements regarding the decoration of such wares. The progress gained in this art has been such that at the present time these wares are universally known and admired; for, following in the wake of the snuff and tobacco boxes, have appeared cigar and cigarette papyrus cases, sleeve-links, match-boxes, tea-caddies, trays, tables, album covers, &c.

The average earnings of papier-maché workers in this special art industry is about 150 rubles (\$75) a year. When engaged at his own home and employing his own materials the paper worker's average receipt is from 83 copecks to 1 ruble (41½ cents to 50 cents) per day, and during a year he may earn from 100 to 200 rubles (\$50 to \$100). As also a hired kustar, when working for a master at this occupation, receives from 40 copecks (20 cents) per dozen to 3 rubles (\$1.50) per piece, according to the nature and dimensions of the object worked upon or made. If, however, such laborer is provided with food by his master, a deduction of 20 copecks (10 cents) per day is made for the same, it being fully understood that in all such transactions the workman provides his own tea and sugar. The average earnings of a hired kustar at piece-work is about 80 copecks (40 cents) per day. It is more profitable for the kustars to be engaged upon large goods than upon small articles. Polishers, finishers, and lacquerers working at their own homes receive about the same pay as the papier-maché molders. Hired workmen (with masters' food) receive—polishers and finishers, 7 to 10 rubles (\$3.50 to \$5); and lacquerers, 2 to 15 rubles (\$1 to \$7.50) per month.

## COLORING PRINTS.

In the neighborhood of Moscow there still lingers the remnant of an occupation formerly wide-spread. This industry is but little known, and may be described as a florid art. This occupation consists in the coloring of prints from coarse wood-cuts; also the painting in water-colors of lithographic sheets. Such occupation has been in existence during the past seventy years, and the kustars engaged in this industry reside in the suburbs of Moscow, in view of the facility for communication betwixt the artist and the commissioner, inasmuch as the painter in his business transactions invariably goes to and fro on foot. The origin of this industry dates from the beginning of the present century. At a china factory near Moscow, amongst those employed were the orphan children of a serf—one Vasseli Kayeloff—in whom the director, an Italian, took a lively interest, and imparted to them a knowledge of the art of

making water-colors and gave instructions in the coloring of ordinary prints. An art thus easily acquired rapidly spread, and at the commencement of this decorative industry such labor was fairly remunerative, inasmuch as the prices paid for variegating was from 15 to 20 rubles (\$10 to \$15 at the then value) per 1,000 prints or cartoons. With the introduction and development of chromo-lithography the prices paid have diminished to such an extent that the coloring of these prints is now paid for at the rate of 1 ruble (50 cents) per 1,000, and for lithographed sheets, which demand more care and attention, 2 rubles (\$1) per 100 sheets. In 1881, in the suburbs of Moscow, there were engaged in this unequal combat with chromo-lithography 364 kustars in 174 homes. Of this total 98 per cent. consisted of families, and only 2 per cent. were hired in this service.

In this industrial art those who have had the benefit of two years' experience become adepts in the art. It can therefore be readily understood that in this occupation not only are aged men and women engaged, but also children. It is interesting to consider the return for a week's labor in such service. The capital required by a kустar to establish and found an industry of this nature was in 1880 43 copecks (21½ cents), with which to purchase four paint-brushes for the four colors demanded in the interests and requirements of the profession, and which colors, as a rule, are or were, blue, green, vermillion, and turmeric. A week's labor at this industry (14 to 15 hours a day) generally resulted in the daubing of 1,500 prints, for which would be received the sum of 1½ rubles (75 cents). The paints used in this work cost on an average 70 copecks (35 cents). Maintenance and other sundry expenses per individual, say, 1 ruble 20 copecks (60 cents). Thus in the end is a loss of 40 copecks (20 cents) per artist per week.

Notwithstanding such a climax, Russian matrons yet find it feasible and possible to conduct this industry with advantage when they are successful in obtaining orders, inasmuch as the younger generation must at any event be fed, and every little which tends to make ends meet is a help. It is also well to remember that it was only during the summer of 1881 that the prices in this industry fell so low; for prior to that time this florid art was paid for at the rate of 1¼, 1½, and even 1¾ rubles, (62½, 75, 87½ cents) per 1,000 sheets.

As an occupation this industry has never been taken up individually, but has always been associated with families and always been conducted in homes where the children of both sexes and the halt and the maimed are able to render serviceable aid. As a rule the mother or oldest daughter takes command of the children. A deviation from the line of contour or a misapplication of the wrong paint does not count, for in this industry there are no masters. A young four-year-old artist striving for chromatic effect generally succeeds in the endeavor, and it has never been known for the kустar to have the work rejected. As a rule the homes in which such an industry is conducted are always scrupulously clean.

Another and different result is obtained by these kustars when engaged in the coloring of lithographs, which necessarily demands a greater degree of care and attention in working and greater brilliance and variety in the coloring. These kustars, as a rule, receive the plain sheets in press form, without a specimen sheet to work from. The dealers, as a rule, rely entirely upon the kустar's taste and sense of color, and it has been proven by long experience that in all instances the artists themselves are by far the best judges of economical effect. The capital necessary to commence an industry of this description has



been averaged at 1 ruble 52 copecks (76 cents). A week's work with dry-ground paint-powder costs  $73\frac{1}{2}$  copecks ( $36\frac{3}{4}$  cents), as compared with the use of cake-paint, 1 ruble 50 copecks (75 cents). During the same period the expenses of maintenance may be placed at 17 copecks ( $8\frac{1}{2}$  cents) per day, or 1 ruble 19 copecks ( $59\frac{1}{2}$  cents) per week; wear and tear of tools, &c., 12 copecks (6 cents); expenses to Moscow, 20 copecks (10 cents)—or 1 ruble 51 copecks ( $75\frac{1}{2}$  cents); or altogether, according to the paint employed, 2.24 $\frac{1}{2}$  rubles to 3.01 rubles ( $\$1.12\frac{1}{4}$  cents to  $\$1.50\frac{1}{2}$  cents). A kустar working upon these lithographs can color from 12 to 50 in a day's labor of 15 hours, or on an average say 30, or in a week 180, the payment for which will be 3 rubles 60 copecks ( $\$1.80$ ). Thus the profit arising from such occupation is  $91\frac{1}{2}$  copecks ( $45\frac{3}{4}$  cents). During the year 1881 the kустars in the suburbs of Moscow colored and daubed 3,000,000 prints, and the remuneration received for such service was 6,125 rubles ( $\$3,062.50$ ).

#### PAINTING ICONS.

The painting of religious icons is an industry of the kустar in many governments. In the district of Bogorodsk—Moscow government—such occupation is conducted in 37 homes and 71 kустars are constantly engaged. The yearly output of icons from this region is about 9,000—which are mostly ordered—valued at from 13,050 to 17,400 rubles ( $\$6,525$  to  $\$8,700$ ). In the execution of such work the icons are divided into two groups—single saints and multiple saints. A kустar can execute three icons containing single figures in a week, the sale price for which is 1 ruble (50 cents) each; total, 3 rubles ( $\$1.50$ ); the expenses in connection with the same being 2 rubles 8 copecks ( $\$1.04$ ), leave a remuneration of 92 copecks (46 cents). However, should the icon painter be in a position to purchase at once the material necessary for painting 60 icons at an outlay of 37 rubles 93 copecks ( $\$18.96\frac{1}{2}$ ); if he paints icons in which there are more than one figure the average cost of production does not exceed 63 copecks ( $31\frac{1}{2}$  cents). The sale price being 2 rubles ( $\$1.00$ ) for such works, his receipts from such occupation will be 1 ruble 51 copecks ( $75\frac{1}{2}$  cents) for his week's labor.

#### NETS.

In most villages on the banks of the Volga kустars engage their spare time in the making of nets, and most markets are supplied from this source. In this industry women are mostly engaged. In the Ostashkoff district, government of Tver, 26,000 poods (936,000 pounds) of hemp and 7,000 poods (252,000 pounds) of flax is the average annual quantity of raw material used by the kустars in the manufacture of nets. The cost of material is about 80,000 rubles ( $\$40,000$ ) annually. In this district men and women are engaged in this industry, but the principal labor is performed by juniors from 10 to 16 years of age, who work 20 to 25 weeks during the autumn and winter at such labor. An adult workman receives for a day's labor 20 copecks (10 cents), juniors from 10 to 15 copecks (5 to  $7\frac{1}{2}$  cents).

In the village of Lobanoff (Nijni Novgorod government) 400 women and girls give this industry special attention; in fact, this occupation engages all their spare time. Net-making is carried on by them during the entire year. During the winter evenings these kустars work without light. The raw material is purchased at the market or bazaar, and the twine prepared at home. A pood (36 pounds) of this raw material costs,

on an average, 2 rubles (\$1), from which netting can be made valued at 20 rubles (\$10). An industrious female can earn 18 rubles (\$9) during a winter. The average working of this village of Lobanoff has been estimated at 4,000 rubles (\$2,000)—about 10 rubles (\$5) per head engaged in such labor. Nets made to order are slightly dearer than the general stock. Netting 100 meshes wide and a stretch of both arms in length, or a sagene (7 feet), costs 30 or 40 copecks (15 to 20 cents).

#### KNIT GOODS, ETC.

In the manufacture of knitted goods from homespun cotton and woolen yarns, such output is general throughout all Russia. In the Evenegorod, Mojaïsk, and Vereusk districts of the Moscow government 6,237 homesteads found part occupation for 13,100 women and girls in such knittings. The annual output from such industry in 1881 was estimated as being 524,000 rubles (\$262,000), and the average annual earnings of those engaged was from 5 to 25 rubles (\$2.50 to \$12.50). It was estimated in 1881 that in the government of Moscow 16,073 women, in 7,800 homes, produced 700,000 rubles' (\$350,000) worth of knitted wares.

#### BIRDS AND DOMESTIC ANIMALS.

In one of the villages in the government of Toula the peasants are interested in the breeding of canaries. Eighty homesteads thus find profitable occupation. The breedings are sold in Moscow and the neighborhood. In the huts engaged in this undertaking from five to ten breeding-cages are the average. This industry is also partly developed in other villages in the neighborhood of Toula. The breeding of canaries is also largely carried on in the government of Kalouga.

In many villages of the Temnikoff district (government of Tamboff) pigeons are bred as domestic animals and their skins sold as peltries to the furriers and others, mostly Jews, who visit the weekly bazaars and fairs to make such purchases. This dealing in pigeon skins is a decided innovation of later times, and cruelly dispels the illusion of travelers and writers as to this bird's sanctity amongst the commonalty.

#### MISCELLANEOUS.

In most of the villages in the government of Archangel the natives are engaged in the manufacture of wares, of the most delicate and intricate cutting, made from mammoth bones, collected by the bone-hunters on the shores of the frozen sea, who sell such bones, &c., to the peasant kustars engaged in bone art industries.

The hamlet of Krasnoi, near St. Petersburg, being in close proximity to a large military camp and practicing grounds, several peasant families have turned kustars and find partial employment in the occupation of searching for spent bullets and shells, and from this source alone many earn their living.

In the same locality advantage is taken of the manœuvring of the troops over the lands adjacent to the camp. Damage done to crops of peasant holdings by such evolutions is indemnified by a government tariff by which the scale of charges for compensation is regulated. The highest charge in the scale is for damage done to turnip crops. *Ergo*, nothing but turnips are now sown in the neighborhood of this camp, and the peasants, whom the soldiers call "kustar turnips," cultivate turnips

in mass, not for gathering, but for stamping by the troops, and only harvest such at the latest possible moment, in order to reap greater profits from possible contingent damages and recompense.

In many of the northern governments of Russia, where the male population as a rule are wanderers and labor away from their homes and villages, the women find employment in the fields in the cultivation and gathering of what is known as Ivan tea. Such herbs are dried and sent to St. Petersburg and other towns for adulteration with genuine tea. This illegal occupation is permitted by the local authorities, inasmuch as to curtail this privilege many families would suffer extreme hardships, the plantations of this artificial tea having been cultivated and nurtured by the care of at least two successive generations.

In the village of Bakroosh (government of Viatka) several kustar wood workers and turners are solely engaged in the making of wooden watches with internal fittings of horn. These curiosities find a ready sale at the country bazaars and fairs.

The villagers of Kerokoori (government of Vologda) are solely engaged in the making of watch-chains and bracelets, composed of small padlocks. Each lock weighs with its key 1 zolotnik (2.408 drams). Each lock opens freely with its key and locks. These curios are made with the most commonplace tools and ordinary appliances.

In the governments of Penza, Saratoff, and Simbirsk—principally in those districts lying in the basin of the river Souri—most of the villagers and householders breed and maintain cats for sale to dealers in this special commodity. These dealers travel during the autumn and winter as hawkers, and peddle sundry wares, such as calicoes, shawls, and handkerchiefs, ribbons, necklaces, ear-rings, needles, pins, laces, bags, alphabets, pictures, and pamphlet tales and legends, toy books, &c., of the most gaudy and trumpery description. The arrival of this worthy in a village causes consternation, and no sooner is his presence known than the villagers rush forth in order to become possessors of at least part of his tempting wares. The matron anxiously grasps and hugs her tabby, and the children hurry to hunt up feline progeny, upon which to commence a bargain, the hawker exchanging handkerchiefs for the head, ribbons, necklaces, ear-rings or something in the way of popular literature, for the cats held up to view on all sides. It is but seldom that money is given, and then never more than 10 to 30 copecks (5 to 15 cents), according to the fur. The cats thus collected are placed in a bag, and he wends his way. After the village is passed, with the skill of an artist—this is the kustar part of the proceeding—one by one they come forth each in its turn. The skins are removed on the spot. By this method of procedure many millions of skins annually find their way to the depot of this industry, the village of Iadoffka Karsoon (in the government of Simbersk), where they are assorted and finally find their way to the head fur centers of the Empire.

JAMES V. R. SWANN,  
*Acting Consul-General.*

UNITED STATES CONSULATE-GENERAL,  
*St. Petersburg, September 14, 1885.*

**LABOR IN THE NERCHINSK MINES.\***

Acting Consul-General Swann transmitted, under dates June 5 and August 16, 1885, the following translations of official accounts on wages and labor in Russia :

In obedience to the order of the cabinet of His Majesty of the 29th October (November 10), I have the honor to present for favorable consideration of the Imperial Cabinet the following information :

(1) At the gold mines of the Nerchinsk mining district workmen receive the following wages: Blacksmiths, strikers, i. e., blacksmiths' helpers, carpenters, and sawyers, from 15 to 30 rubles (\$7.50 to \$15) per month; helpers and general outdoor laborers receive from 40 to 60 copecks (20 to 30 cents) per working day. Earth-work and mining operations are carried on under the following terms and conditions: Gangs of four men when working in alluvial soils or peat must excavate in a working day 1 cubic sagene (343 cubic feet) at 2 rubles (\$1) per sagene. For excavating below the level: for the first cubic sagene in depth, 3 rubles (\$1.50), and for the second cubic sagene 4 rubles (\$2). In winter, gangs of 2½ men, aided by horses, receive payment for excavations in peat, 1½ rubles (75 cents) per cubic sagene; and for work below the level, for the first cubic sagene, 2½ rubles (\$1.25). In excavating peat in summer—4 cubic sagnes—and in obtaining gold-bearing sand, gangs of 7 men each are employed. Each work is separate, and peat, as also for sand, is paid for at 1½ rubles (75 cents) per cubic sagene. For the first cubic sagene of peat below the level, 2 rubles (\$1), and for the second cubic sagene, 3½ rubles (\$1.75). For the first cubic sagene of sand below the level, 2½ rubles (\$1.25), and for the second cubic sagene, 3½ rubles (\$1.75). Under other conditions the pay for excavating is determined by the capability and strength of the laborer, who receives from 15 to 20 rubles (\$7.50 to \$10 per month).

At the Koutomarsky silver works blacksmiths, strikers, carpenters, and sawyers receive from 15 rubles to 20 rubles (\$7.50 to \$10) per month; a foreman smelter, 30 rubles (\$15) per month; workmen and assistants in the works, 20 rubles (\$10) per month; smelters, 1 ruble (50 cents) per working day; furnace attendants and stokers, 65 copecks (32.5 cents) per day; and laborers and general outdoor workers, from 10 to 15 rubles (\$5 to \$7.50) per month.

In the silver and lead mines, miners receive from 300 to 400 rubles (\$150 to \$200) per year; mining inspectors and workers in wet ores, 240 rubles (\$120) per year; blacksmiths, from 120 to 300 rubles (\$60 to \$150); strikers, from 96 to 120 roubles (\$48 to \$60) per year; laborers and outside workers, from 30 to 50 copecks (15 to 25 cents) per working day. In underground mining operations payments vary from 40 roubles (\$20) per cubic sagene, determined by the nature of the formation; or for workers, from 10 to 15 rubles (\$5 to \$7.50) per month.

(2) Eight hours constitute a working day in the gold mines from March to May, and from 15 (27) October to 16 (28) November, and from the 16 (28) November to 1 (13) May 7 hours. Laborers in the works and general outdoor service work from 9 to 12 hours per day, according to the time of year. Underground mining operations are divided into day and night shifts, each shift consisting of 8 hours' work. Day workers do not work at night.

(3) In the Nerchinsk gold mines and works females are not employed, save where they voluntarily attend their husbands employed in the gold mines. Such females serve as washerwomen and general cleaners, receiving monthly payments at from 5 to 8 rubles (\$2.50 to \$4) per month.

(4) Workmen engaged conditionally receive from 25 to 85 rubles (\$12.50 to \$42.50) per individual advance money. In the mines and works they work in gangs of from five to ten persons, and also singly.

(5) In the gold workings the workmen are paid monthly; but, excepting those sums forwarded by the post to their families, they generally receive their wages at the end of the season, about the latter end of September or beginning of October months.

\* NOTE BY ACTING CONSUL-GENERAL SWANN.—The parts in ( ) are explanations of the text, and are not in the original.

The Nerchinsk mining district is situated in the government of Transbaikalia (Zabakale), and the Government or Imperial works in the district of Nerchinsk gave in 1879 employment to two hundred and sixty-eight persons. Nerchinsk, with 4,070 inhabitants in 1879, is 6,906 versts, or 4,579 miles, from St. Petersburg, and 6,302 versts, or 4,178 miles, from Moscow. Nerchinsk is located latitude 51° 58', longitude 134° 16'. The imperial works are situated 295 versts, or 196 miles, from the town of Nerchinsk, and located latitude 51° 19', longitude 137° 02'.

In the mines and works the workmen receive their pay at the end of each month.

(6) Associations or clubs for the purchase of food and clothes do not exist in the Nerchinsk mining district, inasmuch as at the gold mines the food for the workmen is prepared and allotted to each individual monthly at the cost of the district authorities, and in the following proportions: Rye flour, 2 poods (72 pounds); buckwheat, 10 pounds; meat, from March to September, 1.5 poods (40 pounds); from September to March, 30 pounds; tallow, 1 pound; salt, 3 pounds, and half a brick of brick tea. Clothing is also provided by the authorities of the district, and supplied to the workmen on account, the value being deducted from their wages.

At the Nerchinsk mines and works the men provide their own food and clothes.

(7) Workmen and laborers who receive injuries or suffer from serious illness during the term of their service receive aid personally; or in case of death, their wives or children, such aid being based upon § 851 and 855 Statutes, III volume of the Laws of Pensions (edition 1857). Pensions in proportion (as stated in 825 Statute, also III volume) are given to the widows and orphans, excepting to those children just entering life, and adults receive 2 poods (72 pounds) of provisions, and children or others under age, 1 pood (36 pounds) per month. In the Petrovsk foundry and iron works workmen receive wages similar to those paid at the Koutomarsky silver works. Workmen employed in the foundry and rolling-mills, in the smitheries, at the steel converters, and in the mechanical departments, receive various salaries, ranging from 15 to 30 rubles (\$7.50 to \$15) per month.

Based upon the decree of March 8, 1861, there was founded the "Mining Works Association Fund" with a capital subscribed by the department of the works and the workmen in equal proportions, equal to 22,500 rubles (\$11,250). The interest obtained from this capital is devoted to aid workmen, giving pensions in old age, assistance during illness, and, in case of death, relief to the widows and orphans, according to the special laws of the "mining works fund," ratified by the minister of the interior in 1883.

Signed by the Administrator of the District,

M. GERASIMOFF.

Verified by the Manager of the Departments,

D. KOUNITZIN.

JANUARY 5 (17), 1885.

### LABOR AT THE STONE-CUTTING WORKS OF EKATERINBOURG.\*

In accordance with the instructions of the cabinet of His Imperial Majesty of the 29th October (November 10th), I have the honor to report: Workmen in the stone-cutting works receive from 60 to 240 rubles (\$30 to \$120) per year. The day's labor is 10 hours. Women are not employed in the works. There are adults who teach drawing, modeling in clay, relief decorations, and the cutting of stones, and are engaged from 8 till 2 o'clock that is, 6 hours a day. Learners receive wages from 1 to 3 rubles (50 cents to \$1.50) per month. Workmen are engaged singly, and payments are also made individually each month. Co-operative stores for the wholesale purchase of provisions or clothes between the workmen do not exist. Occasionally workmen receive aid from the works, in case of injury, illness, or old age, and at the time of their release from service obligations, in accordance with the imperial decree of March 8, 1861. Regarding smelters no relief has been given. On release from service workmen receive pensions in accordance with the pension decree, also receive provisions for themselves and family.

Signed by the Administrator of the Works, Mining Engineer, Counselor of State,  
N. KOJENKOFF.

Verified by the Acting Secretary,

D. PETROFFSKY.

Correct: Superintendent of the Departments,

D. KOUNITZIN.

### INFORMATION RELATIVE TO THE POSITION OF THE LABORING CLASSES IN THE ALTAI MINING DISTRICT, WITHIN THE JURISDICTION OF THE CABINET OF HIS IMPERIAL MAJESTY.

Within the Altai mining district are silver, copper, and pig-iron smelteries; also mines and quarries bearing gold, silver, copper, and iron and coalpits; also an establishment for the grinding and polishing of variegated colored stones, principally jasper. The materials are received from the lands adjacent to the various establishments.

\*NOTE BY THE TRANSLATOR.—Ekaterinbourg is in the government of Perm, latitude 56° 49', longitude 78° 15'. Inhabitants, 25,133; distance from St. Petersburg, 1,483 miles; from Moscow, 1,172 miles.



## REMUNERATION.

The works, manufactories, mines, quarries, and pits have a variety of conditions and circumstances, each of which in itself influences the scale of remuneration. The density of the district's population, the facilities for obtaining food and the price of same, the proximity or the distance of the industry from trading centers, the facilities for communication, the nature of local requirements, as also the value of manufactured or other articles absolutely necessary to the domestic life of the workman—all such circumstances have an influence upon wages, the more so as reliance has to be placed upon the labor of the settlers in the neighboring villages of the works and mines.

The special character of the manufacturing industry, or the nature of the labor in the mine, or quarry, also influences the matter of labor payments.

Payments are graduated and determined according to the nature of the occupation, as follows: *a.* In works or manufactories; *b.* In the mines, quarries, or pits; *c.* In the grinding or polishing works; and, *d.* For auxiliary labor at the works, manufactories, mines, and pits.

This last labor is divided into indoor and outdoor service, demanding in some instances a certain knowledge and skill, and in others manual labor only. Indoor service includes the smiths, carpenters, and others engaged in constructive operations, and outdoor occupation includes charcoal-burning and its attendant labor. Following such are ordinary laborers, as the weighers and receivers of material, horse-drivers, watchmen, &c., and such other service as the industry demands from carters, miners, &c., and, in the forest industries, woodmen, clearers, &c.

At the head of the technical departments in the various mines, works, and industries rank the superintendents who are first assistant engineers and specialists, having received their technical education in institutions of the second class, and who receive from 480 rubles (\$240) to 1,200 rubles (\$600) annually. After these follow the assayists and foremen, persons who, though they have not received a technical education, and oftentimes no education whatever, have yet acquired the needed skill and knowledge of the industry by dint of many years' experience. Such persons receive from 120 rubles (\$60) to 300 rubles (\$150) annually. Following these are the puddlers and smelters, grinders and polishers, smiths, joiners, carpenters, ore-workers, and others who have attained the proficiency and skill requisite in the various industries, and all of whom receive different payments.

In the greater number of instances where labor is scarce, working assistants, *i. e.*, those not occupying a first industrial rank, receive payments equal to those of specialists. In this category must be included the joiners, carpenters, and blacksmiths, and also those general servants of an industrial character in whom confidence is reposed. In the lower grades of assistant labor, consisting of watchmen, sentries, hostlers, &c., the lowest wages are paid.

The conditions under which payments are made are monthly, daily, and by piece-work.

Piece-work agreements are principally in connection with the hewing of timber, burning of wood, the transport of charcoal and ores, the raising ores, &c., to the surface from the mines and quarries, and also the sorting and crushing of the same. In such labor the units of weights and measures are the sagene (7 feet), the sagene cube (a box or pile of 343 cubic feet), the pood (of 36 pounds), and, in the gold industry, the zolotnik (2.408 drams, or 4.206 grams). Payments for all such work, as before mentioned, are determined by the nature and difficulty attending the operations, the locality, the season of the year, and the distance to be traversed.

Besides which, there is the characteristic labor of certain departments that partake more of the nature of contracts and enter into the character of sublettings, and, consequently, do not enter into the program of the queries at issue.

Female labor is rare in other than domestic occupations. At the works, and also the mines, such labor is exclusively on the surface and by day only. The payments made to females are not less remunerative than male labor.

The hours of labor are from 6 till 12 o'clock, and, as in all large establishments, is conducted during double changes. Thus there are double changes of 12 hours during the day, as also similar changes of a like term during the night. In each change two sets of laborers are engaged, each set working six hours. There is also what is called a three-change system, under which the same laborers work one week in the day, another week in the night, and during the third week is not occupied at his employment. This free week is called the leisure week, and during it laborers continue to receive their ordinary pay.

This latter division of labor emanates in the desire not only to conserve the physical strength of those engaged in these occupations, but at the same time to meet satisfactorily the circumstances demanded by local conditions and requirements. Thus the greater number of the laborers, &c., employed are house and land owners, and in the possession of cattle, &c., and pastures. Necessarily this free term is therefore not so much



needed for the purpose of recruiting physical strength as for maintaining in good working order those domestic and auxiliary economies of the peasants' homes, which in the continued absence of the head of the family from the homestead would suffer severely.

Payments are made at the end of the day, week, fortnight, or month, as the case may be: Daily, for labor of an occasional character; weekly payments are general in the mines and quarries; fortnightly at the works and establishments, and monthly to such laborers as are engaged under such terms and conditions.

Gangs are only found in the mines and quarries where payments are by the piece or task work. Thus, for quantities in excavation, per cubic *sagene*, 343 cubic feet of worked surface, or poods (of 36 pounds) of material lifted to the surface and brought to the crushers or washers, &c., as also do gangs participate in the total receipts of gold in *zolotniks* (4.206 grams) obtained by the administration. In such gangs, whether mutual organizations, or arranged by the administration, all members participate equally.

Co-operative associations, as such, do not exist. Attempts were made by the authorities to organize and introduce such, but entirely without success, owing absolutely to the lamentable ignorance of the laborers interested. All that partakes of the nature of an innovation, or that has been hitherto unknown, is treated with grave suspicion, and the mass of laborers, both sires and sons, dread and fear such. The ambitious aim of such is to live at present as in the past, and studiously to endeavor to retain that order and condition of things that existed under the compulsory conditions of mine and quarry labor prior to the emancipation act of 8 (20) March, 1861. In fact, at present the work of the gangs under the unit or task-piece conditions is the same; and these laborers, as gangs, do not endeavor to work more or increase the averages of these gangs who worked compulsorily during serfdom. Such an agreement is with them mutual and proverbial. A progressive increase in individual exertion is occasionally met, but at the same time it is most exceptional.

Children of parents employed are taught gratuitously in the numerous schools established at the works, mines, &c., and also in the district seminaries, where pupils receive books and all educational necessities free. In the seminaries full maintenance, lodging, food and clothing are furnished to the graduates.

Should the graduate complete his special class course of examination, as established in such seminaries for the special instruction of superintendents and foremen for the works and mines, he is bound to serve in the district for a period of five years, from the date of his passing his examination, or otherwise refund to the administration the sum expended in his behalf.

Persons engaged and employed by the administration receive certain alimentary aid according to their number. Thus the head of the family, as also the wife receive annually two poods (72 pounds) of provisions, mostly rye flour, for every member of the family at the cost of his department. Each homestead annually receives without payment 5 cubic *sagene* (1,715 cubic feet) of fuel which must be hewn and carted away by the laborer, and is also entitled to 2 *desatines* (a *desatine* equals 2.7 acres) of pasture land, rent free.

During illness or incapacity medical aid and medicines are given gratuitously by the administration.

Individuals who labor under yearly conditions, when invalided, receive aid and assistance during the term of two months; and ordinary, as also day laborers, may be benefited one month annually. But if the disability arises from causes in connection with his employment or service occupation in the works or mines, such aid is gratuitously granted until convalescence. Besides, aid is tendered under other exceptional circumstances. Thus, servants or workmen whose contracts and conditions are for terms of not less than one year receive during the entire term of stay in hospital part remuneration, as follows: Single men having under their protection parents or near relatives are given one-third of their wages; married men without children, one-half; and fathers of families, two-thirds. This aid, however, is only given under exceptional circumstances.

However, those who receive medical assistance from the administration at their homes, or who have not been received in the hospital for special causes or under exceptional considerations, such as the nature of the complaint, the absence of accommodation, &c., receive medical assistance and aid till convalescence. Cripples and incurables who suffered from injuries or other causes at the works, mines, or quarries, receive administration aid at the time and in after life. The latter ratio is generally determined by the nature of the occupation, and the payments are made under conditions assessed and existing prior to the emancipation act 8 (20) March, 1861. Thus the aid rendered is in immediate relation to the length of servitude and the nature of the service or labor, and varies from one-fourth to two-thirds of the assessment at the option of the administration.

Under these conditions is an accepted law that persons who have not served 25 years receive aid under the 25-year clause or term, one-fourth assessment. A servi-

tude of 25 years equals a 30-year assessment, or one-third; 30 years' servitude equals a 35-years' assessment, or one-half; and 35 years' service equals 40 years' assessment, or two-thirds. Under such conditions the aid to the incapacitated with a wife may rise, for workmen to 60 rubles (\$30), for assistants to 42 rubles (\$21), and for laborers to 36 rubles (\$18), annually; and these grants increase with every boy or girl, under age by 6 rubles (\$3) each, annually.

Signed by the Manager of the Altai Mining District,

N. IOURIN.

Recorded by the Working Superintendent,

AL. GARAYEFF.

## BELGIUM.

### *REPORT BY CONSUL ROBERTSON ON THE MANUFACTURE OF FIRE-ARMS IN THE DISTRICT OF VERVIERS AND LIEGE.*

Before the invention of fire-arms Liege was celebrated for its armorers, who made not only the weapons of those days, but also the armor. The situation of the city then, as now, contributed largely to its success in the mechanical arts, iron being found in the immediate vicinity and coal within the city limits, the city being in fact underlaid with coal.

The manufacture of fire-arms at Liege can be traced back to the middle of the fourteenth century, and had made such progress at the beginning of the sixteenth century that its manufacturers could furnish large quantities of arms on short notice. The alliance of the city was eagerly sought in the wars of that period, its citizens being not only good soldiers, but also controlling to a great extent the output of war material. Its inhabitants were among the first to employ guns in the open field, having some in the battle of Othée, fought in 1408.

### FIRST GUNS.

The first guns used were naturally of the most primitive construction, being merely iron tubes, set on trestles or fixed on the end of a stick, loaded with stones, iron, or leaden bullets, and fired by means of a hand match. These were succeeded by the "match-lock," in which a hook or cock, holding the lighted match, was moved by means of a trigger in such a way as to bring the lighted match down upon the priming. These in turn gave way to the "wheel-lock" system, in which a fire-stone of compact marcasite was screwed inside the hammer, and a furrowed wheel fastened to the barrel under the pan. By pulling the trigger the hammer was thrown against this wheel, made to rotate by a spring, and sparks were emitted into the priming. This method was not considered very sure, a lighted match being always provided in addition. Then about 1677 came the flint-lock, which continued to about 1822, when they were transformed, or began to be transformed, to percussion-locks.\* The manufacture of fire-arms in Liege has steadily increased in importance, until in 1883 it much exceeded in numbers the other fire-arm manufactories, not excepting Birmingham.

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\* The flint-lock came into use about the middle of the seventeenth century. The earliest form of it, the "snaphaunce," seems to have been invented about the end of the sixteenth century in Germany. A Scotch clergyman named Forsyth obtained in 1807 a patent for priming with fulminating powder; but the invention was little used before 1834.

## PROOF-HOUSE.

This proof-house was established as far back as 1672, and is under Government control. The manufacturers of Liege attribute to this institution much of the reputation which the Liege arms have acquired, for the reason that the proofs are considered very thorough, and that every gun or pistol sold from Liege must be subjected to the proper proof, whether it be fine, medium, or common. There is a regular tariff of charges for the proof, according to caliber.

The receipts of the proof-house in 1884.....	\$66,887 86
The expenditures of the proof-house in 1884.....	36,982 46
Balance.....	29,905 40
According to law 5 per cent. of this balance was paid into a fund for the benefit of the employés of the proof-house, and another 5 per cent. into one for the benefit of other fire-arms workmen.....	2,990 54
Leaving a balance of.....	26,914 86

Which amount is repaid pro rata to those manufacturers who have had arms proved during the year. In this connection it may be observed that every workman handling a gun, until after the final proof of the barrel has been sustained, must be a good judge of the barrel, for the following reasons:

Taking a double-barreled breech-loader as an example, the barrels of which are subjected to three proofs—

1. *Proof of the barrels separately.*—If a barrel bursts at this proof the barrel-maker is responsible, and must replace the damaged barrel without any indemnity.

2. *Proof of the barrels after being soldered together.*—In this case, should one of them burst, not only the barrel-maker, but also the “garniseur” or workman who has soldered them together, loses his labor, as it is held that he should have discovered the defective place before putting them together.

3. *Proof with the breech-loading mechanism attached.*—In case a barrel bursts while undergoing this proof, the barrel-maker, the “garniseur,” and all others who have co-operated in the completion of the gun lose their labor.

The workman must therefore for his own protection be a good judge of the barrel, and must examine and inspect with care every one on which he has any work to do. In respect to the barrel, the same care is exercised on the commonest as on the finest guns.

## DIVISION OF LABOR.

Another reason given for the superiority of the Liege gun manufacturers is the division of labor. The different parts of the gun are not only made by different workmen, but in different localities or villages. The barrels of the sporting guns are made in the valley of the Vesdre, between Liege and Verviers, at Nessonvaux, Trooz, Chaudefontaine, and various other small places. For saloon rifles, revolvers, &c., the barrels are bored at Jupille; the saloon rifles and revolvers are many of them made at Chératte, many other parts being made at Herstal, &c. These places are on the Meuse and below Liege, being several miles apart. The particular branch of the trade carried on by any given workman has probably come down to him for generations, and he will in turn be succeeded by his children. For nearly every little part of a gun or pistol there is a different workman. There are men who

make all their lives, and whose ancestors have made before them, nothing but the hammers, others the triggers, others the lock-frames, others employed in chambering the barrels or cylinders, boring or shaping, making the nipples, screws, the recoil shield, cutting the pins, tail pipes escutcheons, boring to caliber, planing, grooving, rifling, stocking, gauging, blueing, coloring the barrels; others again who polish and finish up, who solder the barrels together, &c.; finally all these pieces are united in the assembling or inspection department of the manufacturer, which is practically all the "manufactory" he has. It is claimed for this division of labor that a man making only one thing, and handling only a restricted number of tools, becomes so expert in using these tools and in contriving ways of saving or shortening labor, that in times of depression they can turn out such quantities of goods at such absurdly low figures as to enable them to compete successfully in any market. The son begins at a very early age to learn the father's trade. Much, and in many cases all, of the work is done at home; sometimes whole families working together. The women and children do much of the carrying back and forth between the manufacturer's and the workman's home, thereby enabling the husband and father to confine himself to his trade. This makes it in many instances very difficult to say what a man could really earn entirely by himself. Very often the workman lives at a very considerable distance from his employer, and though the wife or children are not paid for this carrying, it would result in a serious loss of time to the workman were he obliged to do it himself. This brings us naturally to the subject of wages, which will be treated in detail further on.

#### STRIKES.

On speaking to a manufacturer on the subject of strikes, he said it was one continual strike. In this industry the rates of wages is, or rather the earnings are, continually fluctuating, and are regulated by the law of supply and demand. The same workman, with the exception of the few finishers, assemblers, packers, &c., employed on the premises, rarely works for only one manufacturer, and often for several at one time. He changes his patron too, whenever some other will give him a few cents more on a given job. The work is done by contract, and the manufacturer himself comes in contact with only a very limited number of the workmen who have contributed to the making of the goods which he sells. Some parts of the work are given to contractors, who in turn sublet. In many cases where the work is given directly to the workman the wife, who does the carrying back and forth, also does the bargaining for the new job. The women are said to be much smarter and sharper than the men in this respect, the latter knowing nothing but their trade, and being in pecuniary matters much inferior to the women of the same class. All these things make it very difficult to give any fixed rate of earnings in this particular trade, but contribute to enable many a man to set up a little business for himself, who otherwise must have remained a mere laborer for others all his life. The manufacturers "plant" consists of one building, which is usually his residence, the ground floor giving him all the room necessary for the work done on the premises; that is, for the offices, for a workshop, where the assembling, finishing, and packing are done, and for a storage magazine. During periods of depression the workmen pick up odd jobs of any description, always returning to their trade as soon as possible.

## NUMBER EMPLOYED.

The number of workmen engaged in the manufacture of fire-arms is variously estimated at from 25,000 to 35,000, the former number being probably the nearest correct at the present time, and the number of persons dependent for a living upon this industry—women, children, &c.—is given as 100,000, which is certainly not excessive.

## PRODUCTIONS.

There are no reliable statistics on this point, but those in a position to make an intelligent estimate give the value of the annual production at from 12,000,000 to 15,000,000 francs, say \$2,400,000 to \$3,000,000. There are 125 firms registered at the proof-house, but there are not above 25 of them of any great importance. Owing to the manner in which this business is conducted, as stated above, the amount of capital actually employed probably does not exceed, if it equals, one-fifth of the annual production.

## IMPORTATIONS AND EXPORTATIONS.

The importations consist mostly of old guns rejected by the different governments, bought up by dealers here (there being no duty) cleaned, restored, and transformed, and then shipped to the remotest countries. According to the official statistics the value of the importations for the year 1883 was 2,021,478 francs, or \$390,145.

For the same period the exportations were 13,831,950 francs, or \$2,669,566.

It must be stated here, however, that though these statistics are published by the ministry of finances, they are said by manufacturers to be utterly unreliable, at least as regards the detailed statement, for the reason that no value is declared on exportations, and manufacturers and dealers refuse to make any statement regarding their shipments. The competition is so great in this business that shippers will make no statements, fearing to expose their markets to some rival, who might thereby be enabled to cut into their trade. A copy of the official statement is herewith appended, which in the totals is probably approximately correct. The African trade, which is not mentioned in this statement, is more important than the China trade, about 100,000 flintlocks alone being sent there annually. The goods given in the table as for Hamburg are most of them going to Africa. The same is probably true of much of the goods given as for Holland or Prussia, some going to China, some to Africa, some to Australia, &c. More arms are also sent to Russia than are given under that head in the table.

## SPORTING ARMS.

The sporting guns of Liege, which are its specialty, may be divided into three classes, viz, fine, medium, and common, the last two comprising the bulk of the production. The reason given for this is, that the English, who have paid great attention to the improvements and modifications in fire-arms, being continually on the lookout for such improvements, have practically monopolized the trade in fine goods, while the Liege manufacturers have, up to a very recent date, been content to plod along in the old ruts, turning out vast quantities of common and medium guns, but leaving the fine work for others. The Paris Exposition of 1878 awakened the Liege manufacturers to a realizing



sense of their remissness, since which time they have been improving until now they can and do make a very fine gun, which, if allowed to compete with the English article solely on its merits, would, and in time doubtless will, enable Liege to become a very serious rival to England. The bulk of the American trade is in guns of less than \$20—say from \$1.10 for single-barrel muzzle-loaders to \$15 and \$20 for double-barreled breech-loaders.

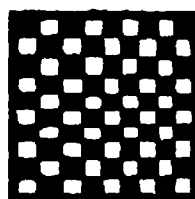
#### GUN-BARRELS.

The gun-barrels are a distinct branch of the trade, and those for sporting-guns, twisted, plain, and damascus, are made in the valley of the Vesdre, where there are from forty to fifty barrel-making firms or concerns, employing in good times from two or three up to forty workmen each. Whatever power is required is furnished by the river. The water-wheels and much of the machinery is of a very primitive kind, many of them very old, this trade having been carried on here for generations. The making of the so-called damascus barrels is the principal part of the trade here. The damascus (damas) is a combination of iron and steel, and the pattern can be almost infinitely varied by varying the proportion and combination of these two metals, the steel producing the dark spots or stripes in the design and the iron the light ones.

These metals are bought in bars, and are then brought to the proper dimensions in the foundries in or near Liege, and from there sent to the barrel-maker, each one of whom has his manner of making the combination to form the "damascus." The basis of the damascus is a mass of iron and steel about 15 by 6 by 6 inches. This mass is sometimes composed of layers of iron and of steel, alternating in thin sheets the length and width of the mass (No. 1), this being an end view of



No. 1.



No. 2.

the mass, the lines representing the steel and the spaces the iron, the strips of which are a trifle the thickest. Sometimes the mass, being of the same dimensions, is made of alternate strips or square rods of iron and steel the length of the mass, and, say, five-sixteenths to three-eighths inch square (No. 2), end view as before. For an inferior quality of damascus scraps of iron and steel are often used without any regularity in the composition of the mass. This mass, having been formed by the barrel-maker, is in some cases inclosed in a sheet-iron envelope; in others it is merely bound together with wire and returned to the rolling-mills, where it is heated and drawn out by means of rollers into long strips or bars from 1½ to 2 inches square. These strips are cut into pieces of 15 to 20 inches in length, again heated and drawn out to long rods, several yards long, and the dimensions required by the barrel-maker, say from one-fourth to three-eighths inch square. These strips are the "damascus," and each strip contains relatively the same proportions and combinations of iron and steel as the original mass. Then comes, for the finer qualities, another process, the object being to still further vary the pattern or design of the damascus. This is done by heating these strips red hot and then twisting them until they have the appearance of screws, with the thread more or less fine, according to the



design desired. This twisting further mixes and varies but does not break the threads of iron and steel running through the strip. A ribbon about three-fourths inch wide is then formed by forging together 2, 3, 4, or even 6 of these twisted strips, according to the pattern of damascus required—2, 3, 4, or 6 striped. This ribbon is then wound spirally on a mandrel over what is called a “chemise” of thin sheet-iron, which, however, entirely disappears by the time the barrel is finished. Some makers use what is called a “doublure,” which is a lining of iron, enabling them to use a thinner ribbon of damascus, resulting in a saving of expense, but producing an inferior barrel. The best barrels are made without the doublure, and are of damascus through and through. After the ribbon has been wound over the chemise, forming a rough barrel, comes the forging. Only an inch or two is heated and hammered at a time, making at least 150 heatings per barrel. This is a job requiring great skill and care, as, if each heating is not just right, the metal will not properly fuse, and there will be a defect in the barrel. This forging is repeated from three to four times over the entire length of the barrel, and almost inch by inch. The barrel is then ground down to the desired outside dimensions and polished, and bored and polished inside by means of revolving files and wood and emery to the caliber required. In this latter process the last vestiges of the “chemise” disappear. In these different processes the weight of a pair of barrels as first twisted on the mandrel with the chemise inside is brought down from 9 pounds to about 3 pounds. The barrel-makers claim that they cannot be properly made with less waste. For inferior qualities of damascus the strip is wound on the mandrel as it comes from the rolling-mill, and without being twisted. For the forging of the barrels, as for the twisting and forming of the ribbons, two men are required. The earnings per day, working by the piece, are given as follows:

Apprêteurs, those who twist the strips and forge the ribbons .....	\$1 00
Forgeurs, who forge the barrel .....	1 10
Frappeurs, who are the helpers of the two first named .....	70
Dresseurs, who examine the barrel to detect and remedy dents, &c.....	1 00
Aiguiseurs, who grind and polish the barrels to outside dimensions.....	1 00
Polisseurs, who polish the inside of the barrels.....	70
Foreurs, who bore out and smooth out inside—mostly boys.....	40

I think the rates as here given, by a leading barrel-maker, are somewhat high, excepting, perhaps, those of the forgers, who must be very expert. An “apprêteur” and his helper can twist the strips for the ribbons and make ribbons, say, of three strips (“three laines”), for two pairs of barrels per day. A forger and his helper can forge about three pairs of barrels per day. One man with machine can clean out and bore to caliber in ten hours forty barrels. One man with machine can polish in ten hours’ work about forty barrels. One man can grind down to outside dimensions, per day, about sixty barrels.

COST OF MATERIALS FOR THE DAMASCUS.

The steel comes from Germany and costs, first quality:	Per 100 pounds.
Flat bars .....	\$11 00
Square bars.....	12 00
The iron is bought in Belgium, and costs:	
Flat bars .....	6 00
Square bars.....	7 00
Cost of reducing these bars at the rolling-mills to dimensions required:	
For the steel.....	1 20
For the iron.....	1 00
Heating and rolling the damascus “mass” for the strips for ribbons..	\$1 70 to 2 00

The coal used in the “smithy” is Belgian, and costs about \$4 per ton.

FINISHING THE GUN.

After the barrel is ground, bored, and polished it is ready for the gun manufacturer proper. A great deal of the manual labor is done by contractors, who furnish the materials, subletting parts of the work. Some of the parts are of iron or steel cast into the form required, as the locks, breeches, &c.; others are stamped out of swages of forged iron or steel. In forging, the number of heats may be from one to twenty, as the lock-frames, hammer, trigger, &c. It may thus happen that in the forging for a single pistol there are from thirty to forty distinct operations. After forging, each piece must be annealed. The following is a list of wages paid per piece, as given by one of the leading manufacturers :

Soldering together the barrels, double guns .....	\$0 40 to \$4 00
Action .....	1 40 6 00
Locks, per pair .....	20 5 00
Stock-maker .....	20 2 50
Filing hammer .....	20 1 00
Varnishing stock .....	10 40
Checkering stock .....	5 40
Engraving .....	5 5 00
Proving barrels .....	15 80
Hardening .....	15 30
Finisher .....	40 3 00

These figures are piece prices, and these men earn from 60 cents to \$1 per day. The best finisher, for example, who must be an intelligent man, can be had for 5 francs or \$1 per day.

Boys do not earn to exceed 20 cents to 25 cents per day.

Under the system in vogue here it is impossible to say how much the men earn per day of a given number of hours, as they not only work at home, and are assisted more or less by the different members of their families, but the number of working hours per day vary according to the workman's disposition or circumstances. Some men work eight, ten, or twelve hours per day, perhaps a little more, while there are those, at least it is so stated, who work even eighteen hours per day when work is plenty. All this makes it impossible to give accurate figures, but the above are given as an average. Taking an ordinary breech-loader as an example, the following are given as the cost of the various parts, but, owing to the manner in which this work is given out, the manufacturer himself professed to be unable to separate the cost of material and labor.

Articles.	Cost.	Articles.	Cost.
Barrels .....	\$1 60	Regulating locks .....	\$0 40
Proof .....	20	Filing the wood .....	15
Polish inside ..	15	Browning barrel .....	20
Putting together .....	60	Checkering stock .....	10
Action .....	2 50	Oiling .....	15
Guard .....	15	Engraving .....	40
Locks .....	60	Hardening .....	15
Heel-plate .....	05	Polishing barrels .....	10
Stock .....	15	Finishing .....	1 00
Stock-maker .....	70		
Filing hammer .....	20	Total .....	9 55

In the above list it is easy to distinguish when the labor is given separately from the material.

The above gun is supposed to cost from \$10 to \$11.

Another list from another manufacturer:

Articles.	Cost.	Articles.	Cost.
Barrels from iron, 70 cents to twisted	\$1 30	Bringing out the pattern or design	
Proof.....	13	of the damascus, done with acids..	9 to 12
Reboring.....	10	Chasing or engraving, from 1 cent	
Soldering together ...	38	to any amount.	
Breech .....	1 10 to 2 60	Tempering .....	10
Taking apart. ....	20 to 50	Bluing .....	1 to 10
Locks, 27 cents to 47 cents or.....	75	Polishing .....	10
Grooves.....	03	Nickel-plating, trimmings.....	15
Plate .....	02	Filing wood .....	3 to 12
Stock .....	10 to 15	Checkering stock .....	4 to 15
Stock-maker .....	23 to 40	Cleaning .....	8 to 15
Under-guard .....	13	Fitting.....	75
Adjusting and arranging hammers..	12	Finisher, 55 cents to \$1.20 or .....	1 50
Adjusting and arranging locks .....	25 to 40	Expenses of home establishment and	
Polishing barrels.....	05 to 08	packing, say, 10 per cent.	
Inlaying barrels .....	04 to 08		

DETAILS OF COST.

The following is a description of the different processes a gun goes through, with as nearly as possible the cost of each operation.

Gun to be a double-barreled breech-loader, to cost, say, \$20.

For the barrels is paid about \$1.75. The barrels received by the manufacturer are at once given to the "garniseur." He is instructed in regard to the length, height of band, and for what kind of breech action they are intended. It is also his duty to take the barrels to the proof-house, where they are proved before and after being put together. If imperfections are discovered, the barrels are returned to the barrel-maker to be re-welded or replaced. Putting together, proof, portage, &c., costs about \$1. The barrels having been returned with proof-marks are inspected, and the band which holds them together tested as to its firmness and strength. The piece which is intended to hold the barrels to the breech action is subjected to several hard blows of a hammer to test its rigidity before it passes out of the hands of the examiner into those of the borer and polisher, who bores and polishes the interior, and at the same time chambering the barrels for the cartridges. Cost, 20 cents.

The barrels are now given to the "basculeur" or action-maker, where the breech action of the gun is carefully made of iron and steel. The material costs about 50 cents, and the labor about, say, \$7 to \$7.50. The wood for the stock costs in this case 20 cents, and is given in the rough to the stock-maker, with the barrel breech action, and locks which have been carefully fitted. The operation of shaping the stock requires much skill, and only a first class stock-maker can be expected to give well-finished lines to his stock, making stock about \$1. The gun is again inspected and given to the "équipeur," who adjusts the screws, &c. It is then taken apart and given to a number of workmen to finish the various parts—viz, to the "systèmeur," who files the hammer to shape and receives 25 cents; "rhabilleur," who does nothing but put the locks in order and receives 70 cents; "polisseur," who polishes the exterior and receives 12 cents; "dérocheur," who brings out the design of the damascus. The basis of this operation is acids, but it is said to be a trade secret known to very few. The operation requires about two days, but the workman has, of course, a great many on hand at once in different stages of preparation. This costs, say, 20 cents. It is then given to the engraver. This operation may cost from 3 cents, as on very common guns, to almost any amount, as in guns for expositions, which are nearly covered with engraving. In this case we will say about 40 cents. To the "trempeur," or case-hardener, who hardens one half of the exposed parts or "furniture" of the gun. He is paid 25 cents. To the bluer who blues the other half of the "furniture, 10 cents. Incidental polishing, cost of screws, pins, triggers, sights, butt-guard, name-plate, and cost of adjusting same, \$1.50. Cost of locks, \$1. Re-filing of stock, "relimer," 10 cents. Checkering stock, "quadriller," 15 cents. Oiling and finishing of stock, which consists in rubbing down to a polish with pumice stone and oil, 15 cents. The gun is then reassembled by an assembler, who returns it to the factory in working condition and receives \$1.25. The gun is next repassed, that is, is completely taken apart, the interior of the locks, action, &c., polished, the springs tried, and everything adjusted to perfection, when several cartridges are fired to test the strength of the main springs. It is then oiled to prevent rust, and is ready for packing. This finishing and the various inspections that the piece is subjected to in

the course of its construction cost about \$1. Packing is charged extra and is therefore not included in the cost of the gun. Covers are put on and 25 packed in a case. Total cost, \$19.32.

The "basculeur," or man who contracts for the making of the breech-actions, probably employs a number of men and may make per day \$1; the "garniseur" who puts the barrels together, perhaps 95 cents; the "faiseur de bois" or stock-maker, perhaps 90 cents.

Enormous quantities of barrels are also made of one material, either iron or steel, and very cheap, the former from 70 cents per pair, and the latter about 90 to 95 cents per pair, and upward. For these guns the steel and iron are received in round rods representing the exterior size of the barrels, are bored out, polished inside and out, set, and are finished.

In making the revolvers and saloon rifles, barrels are of steel bored out to the desired caliber, polished, &c., planed by hand or machine on the exterior, and can be turned out at absurdly low prices.

The steel for this class of arms is bought at foundries near Liège, and costs about \$2.80 to \$3 per 100 pounds.

For the springs and some of the finer parts a finer quality is required, and costs \$3.50 to \$4 per 100 pounds. This steel is very soft, both qualities.

The boring is a distinct branch of the business, is done by machinery, and costs 8, 10, or 12 cents, according to length and caliber.

The workmen earn from 50 to 60 cents per day; the very best may in some cases earn \$1 or \$1.20 per day, but the average is as above. A workman earning, say, 60 cents per day, can make the screws and small pieces, finish, and put together three saloon rifles per day.

A good six-shooter revolver can be made in the rough for 35 to 40 cents.

#### STOCKS.

The stocks are made—the better ones—of walnut, and cost in the rough: Common walnut, from Belgium, 10 to 40 cents; medium quality, from Germany and Switzerland, 20 cents to \$1; finest quality, from France and Italy, 60 cents to \$4. Of the finest there are those even more expensive, as high as \$20 and \$30, but these are, of course, the exception.

Common woods, painted, lacquered, &c., are also used for the cheapest guns; cost, 6 to 7 cents.

The Government established a manufactory of arms at Liege about the year 1840. Up to that time the private firms had executed the orders of the Government. Recently, however, the Government having need of 30,000 guns for the "guard civique" found that the private firms could make these arms—the "Comblain"—so much cheaper than the Government works that the order was given to one or two of the leading firms here. The public works are at present used for repairing, &c.

The price paid by the Government is not stated, but the gun can be had for about \$13, including bayonet.

#### MACHINERY.

The manufacture of fire-arms by machinery is still in its infancy at Liege. There are now three establishments of this kind here, but the owners refuse to give information in regard to wages, &c. It may, however, be considered that the average earnings of the workmen are about the same as for the hand-made goods, and the material used must cost the same. The machinery is said to be very expensive, and in order to

insure success the manufacturer must be assured of large orders for the very same style of goods, which is said to be very rare in sporting goods. The fantasies of the sporting public are said to be without end, and it is the adaptability and the facility with which the Liege manufacturers have been able to copy and imitate the different styles, which have opened to them all the markets of the world. The machine-made guns may have a certain amount of success in a few standard styles, but the so-called hand-made guns will continue to be the specialty of Liege.

NOTES.

In giving lists of prices, it should be remarked that in the main, in a cheaper or dearer gun, the same proportions would be maintained; at the same time there might be exceptions to this rule, as some few parts, notably the breech action, might vary very greatly in price, the balance of the gun remaining the same or retaining the same relative proportions in the matter of price.

In illustration of the remarks above in regard to the facility with which the Liege makers can imitate or change styles, it may be stated that some manufacturers are said to have as many as six thousand patterns in their workshops.

It is said that there are a few men in the establishments where the fire arms are made by machinery who earn as high as \$2 and \$3 per day. These are, however, exceptional cases, there not being more than two or three such men in any one factory.

G. D. ROBERTSON,  
Consul.

UNITED STATES CONSULATE,  
*Verviers and Liege, September 17, 1885.*

*Comparison of production of fire-arms between Liege, Birmingham, and St. Etienne.*

Description.	Year.	Liege.	Birming- ham.	St. Etienne.
Single guns.....	{ 1882	277, 446	154, 100	7, 375
	{ 1883	233, 671	210, 692	6, 647
Double guns.....	{ 1882	186, 418	230, 368	34, 543
	{ 1883	186, 792	225, 444	42, 391
Slave-traders'.....	{ 1882	79, 229	.....	.....
	{ 1883	66, 863	.....	.....
Saddle-pistols.....	{ 1883	15, 557	29, 755	5, 644
	{ 1882	22, 936	} 65, 116	9, 104
Revolvers.....	{ 1882	427, 214		
	{ 1883	415, 570	6, 328	1, 718
Military guns.....	{ 1882	88, 693	10, 268	39
	{ 1883	47, 875	7, 688	9
Total number of pieces .....	.....	2, 048, 264	939, 750	106, 809

The above figures are taken from the Liege Chamber of Commerce Report.  
In 1882, the Chamber of Commerce numbers the slave-traders' among the military arms, viz, 79,229 and 88,693, equal to 167,922; further, saddle pistols and revolvers as pistols, viz., 22,936 and 427,214 equal to 450,150.



## GUN-PROOF ESTABLISHMENT AT LIEGE, BELGIUM.

ABSTRACT FROM THE ROYAL DECREE OF JUNE 16, 1853.

**ARTICLE 1.** All fire-arms, of whatever caliber and dimensions, manufactured in this country, shall be thoroughly tested by firing, in the public proof-house established to this effect. The same rule shall apply in reference to all fire-arms imported from abroad, unless they have been proved in the country of their production, the trial being confirmed by the official proof-mark thereof.

**ART. 46.** Manufacturers, dealers, and armory workmen who sell, exhibit for sale, or keep in their stores, show-rooms, or workshops any gun-barrels not being thus proved and officially marked, shall be subject to punishment as provided by the articles 8 and 15 of the decree of December 14, 1810.

## BREECH-LOADING FIRE-ARMS.

Single guns are to undergo two different trials, and double guns three.

The so-called saloon-arms, the Floberts and similar systems, have to pass through the same control, and must bear the official proof-mark.

## GENERAL RULE.

There are three kinds of proof-marks, namely:

The provisional puncheon: 

The puncheon for the inspection of the system: 

The peremptory puncheon: 

All finished fire-arms must display the peremptory mark of admission.

The care for carrying into effect the foregoing regulations is intrusted to the police and to the director of the proof-house, or to his delegate.

## PENALTIES.

Persons violating said regulations shall be arraigned before the proper tribunals and be punished, according to the degree of guilt and to the circumstances attending the case, by a fine to the extent of 600 francs, by an imprisonment not exceeding fourteen days, or both, in the discretion of the court; and moreover by the confiscation of the forfeited arms.

## MANNER OF TESTING THE FIRE-ARMS.

*First proof.*—All fire-arms, except those for military use, are tested with a charge of powder equal to two-thirds of the weight of the bullet applicable to their bore. Thus the barrel of a hunting-piece 16 bore (0<sup>m</sup>.0176) shall sustain a charge of 18 grains (grams) of powder, weight of bullet 28 grains.

The barrel of a hunting piece 12 bore (0<sup>m</sup>.0186) shall take 22 grains of powder, the lead weighing 33 grains.

For small-bore military arms the charge of powder is to be 10 grains and the weight of the bullet 44 grains.

*Second proof.*—The second test for trade arms is made in operating with two-thirds of the charges used in the first. For instance, a gun-barrel 16 caliber must support a charge of 12 grains of powder, and one of 12 caliber 15 grains; while the second essay with finished single breech-loading guns, both for military and sporting use, shall be made with one-third of the quantity of superfine powder employed for the first proof.

*Third proof.*—The third trial for ascertaining the efficiency of Lefauchaux or other breech-loading double barrels, with their action on, is made in taking one-half of the charges used for the second. Hence the barrels of a double hunting-gun, welded together, garnished with their breech work and completely finished, will require for 16 bore 6 grains, for 12 bore 7 grains of superfine powder; thus furnishing in reality a gun-proof of 12 and 14 grains respectively, the strain acting with double the force on the united barrels and their appurtenant parts, because the former are fired off simultaneously.

## INSPECTION OF THE ARMS AFTER PROVING.

The controllers charged with the final inspection of the arms tested by firing are appointed every year by the governor of the province of Liege. On finishing their examination the inspectors punch their peculiar initials on the pieces inspected; they are liable to pay a fine equivalent to the worth of the fire-arms should they suffer a piece of work to pass as good when defective.

## MANAGEMENT.

The management of the proof-house is committed to the care of a syndicate of six manufacturers of fire-arms, whose business it is to promote such improvements as will offer all security with regard to the perfect test and inspection of the fire-arms pre-



sented for proving. The members of this committee are elected by the united manufacturers of fire-arms, meeting under the presidency of the governor of the province, while the director of the establishment is appointed by Government. This officer is charged with the general guardianship over the fire-arms business in Belgium, and he is in particular enjoined to watch that the law be carried rigorously into effect.

Proof-house for fire-arms.—Tariff of charges.

FIRST PROOF (BARRELS).	
Calibers:	Centa.
13, 13.2, 13.4, 13.6 .....	2½
13.8, 14, 14.2 .....	2½
14.4, 14.6, 14.8, 15, 15.2, 15.4 .....	2½
15.6, 15.8, 16 .....	2½
16.2, 16.4, 16.6 .....	2½
16.8, 17, 17.2, 17.4, 17.6, 17.8 .....	3
18, 18.2, 18.4, 18.6 .....	3½
18.8, 19, 19.2, 19.4 .....	3½
19.6, 19.8, 20, 20.2 .....	3½
20.4, 20.6, 20.8, 21 .....	3½
21.2, 21.4, 21.6, 21.8 .....	4
22, 22.2, 22.4, 22.6, 22.8 .....	4½
23, 23.2, 23.4, 23.6 .....	4½
23.8, 24, 24.2, 24.4 .....	4½
24.6, 24.8, 25, 25.2 .....	4½

Pistols (in pairs).	
14, 14.2, 14.4, 14.6, 14.8, 15, 15.2, 15.4, 15.6, 15.8 .....	2½
16, 16.2, 16.4, 16.6 .....	3
16.8, 17, 17.2, 17.4 .....	3½
17.6, 17.8, 18, 18.2, 18.4, 18.6 .....	3½
18.8, 19, 19.2, 19.4 .....	3½

Rifles.	
13.6 .....	2½
13.8, 14, 14.2, 14.4, 14.6 .....	2½
14.8, 15, 15.2, 15.4, 15.6, 15.8 .....	3
16, 16.2, 16.4, 16.6 .....	3½
16.8, 17 .....	3½
17.2, 17.4 .....	3½
17.6, 17.8 .....	3½
18, 18.2 .....	4
18.4, 18.6 .....	4½

Military arms, caliber 11<sup>mm</sup>, long ball, 3½ cents.

SECOND PROOF (BARRELS).	
13, 13.2, 13.4, 13.6, 13.8, 14, 14.2 ...	2½
14.4, 14.6, 14.8, 15 .....	3
15.2, 15.4, 15.6, 15.8 .....	3½
16, 16.2, 16.4, 16.6, 16.8, 17 .....	3½
17.2, 17.4 .....	3½
17.6, 17.8, 18, 18.2, 18.4, 18.6 .....	3½
18.8, 19, 19.2, 19.4 .....	4
19.6, 19.8, 20, 20.2 .....	4½
20.4, 20.6, 20.8, 21 .....	4½
21.2, 21.4, 21.6, 21.8 .....	4½
22, 22.2, 22.4, 22.6 .....	4½
22.8, 23, 23.2, 23.4 .....	5
23.6, 23.8, 24, 24.2 .....	5½

Pistols, double barreled, in pairs.  
(See tariff for second proof of barrels.)

Single-barreled breech-loaders.	
Pin-fire:	Centa.
Calibers 8 and 10 .....	6½
All other calibers .....	3½
Calibers 8 and 10, cartridges furnished .....	3½

Pin-fire—Continued:	
	Centa.
All other calibers, cartridge furnished .....	2½
All calibers, charge furnished...	1½
Military arms .....	5
Charge furnished .....	1½
Cartridge furnished .....	3
Saloon rifles .....	2
Cane rifles .....	2½
Central fire .....	3½
Central fire:	
Calibers 8 and 10 .....	8½
All other calibers .....	4½
The manufacturer only furnishes the cartridges in special cases, or when it concerns a system requiring a shell which the proof house does not possess.	

THIRD PROOF.	
	Centa.
Double-barreled, with breech action, pin fire:	
Calibers 8 and 10 .....	8½
Of all the other calibers .....	5
Cartridges furnished calibers 8 and 10 .....	4½
Cartridges furnished other calibers .....	3
Of all calibers, charge furnished.	1½
Double-barreled, with breech action, central fire:	
Calibers 8 and 10 .....	10½
Other calibers .....	7
Cartridges furnished calibers 8 and 10 .....	4½
Cartridges furnished other calibers .....	3
Of all calibers, charge furnished.	1½
(One centime is added for each barrel choke-bored.)	

Revolvers and carbine revolvers.	
	Centa.
Revolvers, Lefauchaux, pin-fire and rim-fire .....	per barrel. 1
Charge furnished .....	do.... ½
Revolvers, central fire .....	do.... 1½
Charge furnished .....	do.... ½
Revolvers à piston .....	do.... 1½
Carbine revolvers, Lefauchaux, paste-board cartridges, pin-fire, per barrel.	2½
Central fire .....	do.... 3½

Pistols.	
Ordinary single barrel .....	per pair. 2½
Double barrel .....	do... 4½
Lefauchaux, single barrel .....	do... 2½
Lefauchaux, double barrel .....	do... 5½
Lefauchaux, single barrel, 15 <sup>mm</sup> .....	per pair. 4
Lefauchaux, double barrel, 15 <sup>mm</sup> .....	per pair. 8
Central fire, single barrel .....	do... 4½
Central fire, double barrel .....	do... 9½
Flobert .....	do... 2½

General list of fire-arms proved in Liege during a period of sixty-five years, 1820 to 1884.

Years.	Single guns.	Double guns.	Slave trad-ers' altered guns.	Saddle pistols.	Pocket pistols.	Military guns.	Total.
1820 .....	} 343,750	72,125	138,005	145,726	198,226	222,090	1,119,923
1829 .....							
1830 .....	51,262	17,037	5,476	22,350	51,792	45,617	198,534
1831 .....	28,880	9,214	9,721	22,064	77,384	126,792	274,055
1832 .....	29,064	18,145	9,721	18,444	80,040	189,795	330,488
1833 .....	62,961	20,256	6,075	36,072	68,618	102,877	296,858
1834 .....	95,167	28,104	9,320	82,332	68,132	44,455	277,150
1835 .....	160,488	24,337	7,129	31,074	98,975	74,608	336,612
1836 .....	152,044	24,846	8,438	44,172	140,608	71,651	441,769
1837 .....	103,063	23,041	16,316	24,910	87,448	39,300	294,098
1838 .....	56,753	21,226	13,906	20,708	105,274	31,542	249,409
1839 .....	38,019	20,006	10,349	21,548	88,208	44,202	222,502
1840 .....	49,379	23,935	9,094	23,574	88,208	18,448	212,438
1841 .....	91,011	27,347	10,947	30,166	88,564	19,569	267,604
1842 .....	85,561	25,511	7,092	34,416	103,726	22,744	279,050
1843 .....	63,821	24,936	9,838	24,360	99,692	30,162	252,829
1844 .....	79,824	27,816	14,931	50,540	117,758	31,209	321,678
1845 .....	85,941	29,665	17,015	41,992	156,614	36,121	367,348
1846 .....	25,037	35,188	8,754	40,004	204,144	24,525	437,652
1847 .....	34,307	44,154	15,046	31,008	241,338	24,541	495,394
1848 .....	71,155	37,709	16,575	21,116	258,806	115,014	520,375
1849 .....	106,304	50,635	24,724	45,972	284,086	58,338	570,059
1850 .....	138,546	67,537	23,116	28,796	289,374	44,063	591,432
1851 .....	151,553	61,559	19,865	46,594	202,302	60,878	542,251
1852 .....	159,264	57,805	17,908	39,260	172,006	58,005	503,848
1853 .....	166,390	76,030	14,920	38,908	300,714	68,477	665,439
1854 .....	190,586	108,796	15,727	38,066	309,094	78,720	740,989
1855 .....	193,640	80,811	39,163	41,584	268,042	96,250	714,490
1856 .....	211,133	103,711	40,620	41,842	257,280	82,879	737,485
1857 .....	268,967	99,392	21,344	54,130	232,492	66,194	742,519
1858 .....	198,211	74,723	39,114	38,502	181,660	62,563	594,773
1859 .....	168,553	58,160	34,275	35,016	180,042	113,250	589,296
1860 .....	139,352	80,605	52,961	30,272	189,090	179,660	671,960
1861 .....	126,500	69,383	26,863	23,708	189,452	248,746	684,652
1862 .....	93,475	69,925	55,642	32,232	202,310	325,689	779,278
1863 .....	145,461	33,394	23,056	219,556	34,738	256,888	763,097
1864 .....	202,216	96,616	13,682	276,970	46,131	177,752	813,367
1865 .....	109,422	80,172	21,574	256,302	54,353	144,084	665,907
1866 .....	139,056	97,874	8,513	197,736	65,003	42,148	550,330
1867 .....	169,907	122,541	4,456	154,832	69,644	77,892	590,271
1868 .....	144,105	100,424	3,959	250,086	96,423	106,397	701,394
1869 .....	183,289	172,097	16,305	254,294	141,155	30,193	791,333
1870 .....	219,498	166,088	7,482	139,756	267,392	59,862	860,078
1871 .....	186,150	124,287	27,999	97,692	228,458	35,058	689,644
1872 .....	179,806	154,470	49,471	149,448	269,121	29,841	832,157
1873 .....	216,150	151,791	20,644	121,022	275,005	48,947	833,859
1874 .....	239,595	141,823	30,818	177,032	279,676	53,768	922,712
1875 .....	214,783	112,034	42,932	83,362	275,260	18,827	747,198
1876 .....	153,085	78,932	37,678	45,362	299,847	11,338	626,242
1877 .....	167,084	80,677	51,410	37,970	341,100	26,136	704,377
1878 .....	183,806	113,121	26,747	51,732	403,649	48,686	827,741
1879 .....	180,103	139,759	28,313	48,988	371,725	38,217	807,105
1880 .....	226,677	164,013	21,905	13,820	400,686	47,878	874,929
1881 .....	232,200	175,114	88,682	13,015	435,165	98,907	1,038,083
1882 .....	277,446	186,418	79,229	22,936	427,214	88,693	1,081,936
1883 .....	233,671	186,792	66,863	15,557	415,570	47,875	966,328
1884 .....	219,325	187,981	84,559	12,440	434,889	72,008	1,011,202
	8,373,436	4,524,708	1,510,565	3,894,168	*11,308,884	4,416,669	†34,028,430

\* In this column the production must be taken as "revolvers" since 1863.  
† This number does not include those found imperfect after the first proof.

The above statistics are taken from the official report of the director of the proof-house at Liege, Belgium.

Table of exportations and importations of fire-arms as published by the minister of finances for 1883.

Countries.	Exports.	Imports.	Countries.	Exports.	Imports.
	<i>Francs.</i>	<i>Francs.</i>		<i>Francs.</i>	<i>Francs.</i>
Germany.....	2, 213, 000. 00	181, 786. 00	India.....	33, 935. 00	.....
England .....	1, 611, 795. 00	314, 752. 00	Italy .....	434, 726. 00	22, 320. 00
Australia .....	111, 955. 00	.....	Holland .....	736, 508. 00	149, 702. 00
Austria .....	161, 621. 00	.....	Portugal .....	248, 800. 00	.....
Bremen .....	28, 520. 00	.....	Argentine Republic.	209, 010. 00	.....
Brazil .....	762, 425. 00	.....	Russia ..	93, 775. 00	.....
Chill .....	30, 075. 00	.....	Norway and Sweden	77, 455. 00	.....
China .....	1, 069, 100. 00	.....	Switzerland .....	170, 675. 00	.....
Denmark.....	44, 085. 00	.....	Turkey .....	83, 500. 00	.....
Egypt .....	30, 800. 00	.....	Other countries ...	305, 196. 00	10, 005. 00
Spain.....	140, 692. 00	.....			
United States .....	1, 053, 470. 00	221, 238. 00	Totals .....	13, 831, 950. 00	2, 021, 478. 00
France .....	3, 581, 720. 00	1, 082, 689. 00	Or .....	\$2, 669, 566 35	\$390, 145 25
Hamburg .....	599, 112. 00	38, 986. 00			

AUSTRIA.

REPORT OF CONSUL-GENERAL JUSSEN ON THE MANUFACTURE OF FIRE-ARMS AT STYR.

MATERIALS.

At Werndl's armory, in Styr, the material used for gun-barrels, lock-coverings, cleaning-rods, and bayonets is generally crucible cast-steel (*Tiegdgunstahl*), of different qualities, that is, of such different degree of hardness as experience has shown is most appropriate for the particular part to be hardened.

The gun trimmings, viz, rings, and caps of gun-stocks, butt end of gun-stocks—are made from cast iron, and the stocks or shafts from walnut wood.

The war department of Austria-Hungary has recently ordered that all barrels and bayonets and other most important parts of guns should be made out of refined Martin steel.

LABOR AND WAGES.

For the last fifteen years the number of laborers employed has, on an average, amounted to about 3,000. In the years 1873, 1874, and 1875 this number increased to about 5,000 and over, but subsequently it gradually decreased to 4,000, then to 2,000, and recently, owing to a general decrease of business, only 1,200 laborers have been employed.

The average wages have been from 1.30 to 3 florins a day (50 cents to \$1.17). The skill of the laborer, as well as his industry in finishing job lots, influence, as a matter of course, the amount of his wages. According to the last pay-roll the general average of wages for each laborer was 1.70 florins (66 cents).

MACHINERY.

The armory contains over 3,000 machines of English and American manufacture, which were selected by Mr. Werndl personally in England and America, and which he claims to have improved, or rather adapted to his purposes; but I am unable as yet to furnish a description of any

of these machines, except that I can state in a general way that Mr. Werndl uses hammers of all dimensions (*Fallhämmer*, literally translated, "falling hammers"), of American as well as German manufacture, pneumatic and spring hammers, presses of all kinds and dimensions, bore-machines, emery and revolver machines, and small auxiliary apparatus of all kinds.

It would probably require the services of a skilled mechanic to obtain such a description of the machines in use as would enable a skillful person to imitate them. There are, of course, certain secrets of this armory, regarding especially what Mr. Werndl claims as his improvements, which are guarded against the intrusion of strangers, and particularly against foreigners.

#### MANUFACTURES OF THE ARMORY.

The armory manufactures breech-loaders, carbines, and repeating guns of every model which may be ordered, and has heretofore manufactured these arms, together with the appropriate sword or thrust bayonets, after the following systems or models, viz: One-cartridge system, Werndl, 1867 and 1873; one-cartridge system, Mauser, 1871; one-cartridge system, Gras, 1874; one-cartridge system, Martini-Henry, 1879. Repeating system, Kropatschek, marine and gendarmes model, with revolving chamber, invented and patented by Werndl.

The armory has also manufactured a large number of target and hunting rifles with a movement invented by Werndl.

#### PRICES.

The price of a single one-cartridge system rifle is 31 florins (\$12.12), including bayonet. A repeating rifle, including bayonet, costs 40 florins (\$15.64); a carbine, 27 florins (\$10.56); a repeating carbine, inclusive of bayonet, 40 florins (\$15.64).

The average price will be less in proportion to the size of the order.

During the last fifteen years this armory, aside from the sale of 1,100,000 rifles and carbines to Austria-Hungary, exported over 1,000,000 of these arms to the following countries on the order of their respective governments:

##### Rifles and carbines:

Germany, 500,000 Mauser.  
Bavaria, 20,000 Mauser.  
Wurtemberg, 1,800 Mauser.  
France, 110,000 Gras.  
Greece, 167,000 Gras.  
Roumania, 110,000 Martini-Henry.  
Saxony, 14,000 Mauser.  
Montenegro, 20,000 Werndl.

##### Rifles and carbines—Continued.

Persia, 18,000 Werndl.  
Kropatschek repeating rifles:  
Spain, 1,000.  
Mauser, Gras, and Kropatschek rifles:  
Chili, 20,000.  
Mauser rifles and Kropatschek repeating rifles:  
China, 40,000.

The armory also transformed during the time aforesaid about 500,000 guns for the use of the above-mentioned countries, and sold also to them a large quantity of extra barrels, bayonets, and gun trimmings.

EDMUND JUSSEN,  
Consul-General.

UNITED STATES CONSULATE-GENERAL,  
Vienna, July 13, 1885.

## CANADA.

## REPORT BY CONSUL WAGNER ON THE EXPORTS FROM THE TORONTO CONSULAR DISTRICT TO THE UNITED STATES.

The "declared exports" from this consular district for the year ending September 30, 1885, show a considerable increase over the previous year, notwithstanding the fact that there was quite a large decrease in the exports from the Whitby agency.

Exports for the year ending September 30, 1885 .....	\$3,776,686 20
Exports for the year ending September 30, 1884 .....	3,518,507 07
Increase .....	258,179 13

The separate total exports from Toronto and the Whitby agency were as follows:

District.	Year ending September 30, 1884.	Year ending September 30, 1885.	Increase.	Decrease.
Toronto .....	\$2,806,231 52	\$3,157,468 87	\$351,236 85	.....
Whitby .....	712,276 55	619,217 83	.....	\$93,057 72

Taking into consideration the fact that the past year was one of depression, business having been generally very dull, this increase is particularly pleasing, showing as it does that the trade from Toronto with the United States is being enlarged yearly.

## LUMBER.

One of the most important articles of export from this district is lumber, the bulk of which, during the season of navigation, goes by water to Oswego, Charlotte, and other lake ports, for distribution throughout the East. Most of the lumber exported is soft lumber, although considerable hard wood is also exported, mostly by rail, going to New York, Boston, and other Eastern cities. The lumber trade has increased considerably over last year.

## BARLEY.

The most important article of export, next to lumber, is barley. Quite a large increase in the export of this article over 1884 is shown by the following figures:

*Toronto and Whitby agency.*—Barley exported to the United States for the year ending September 30, 1885, \$2,298,857.85; for the year ending September 30, 1884, \$1,975,790.38; increase, \$323,067.47.

The crop is estimated as much larger this year than last. Very little of it, however, rates as No. 1, but nearly all as No. 3. It is claimed this low rating is caused by the very dark color of the barley.

## BREEDING ANIMALS.

The animals exported to the United States for breeding purposes form an important item in the trade from this district, amounting in value to \$227,349.25 for the past year. A large proportion of these

animals were stallions and mares, mostly of the Clydesdale breed, and all of a superior stock, and calculated to improve the stock of the United States.

Some sheep were exported, mostly of the Cotswold breed.

A very few swine were also exported, mostly of the Berkshire breed, but the number was small.

The annual exhibition at Toronto (held this year from September 7 to 19, inclusive) has been the means of enlarging the trade between the United States and Canada.

A number of parties from different parts of the United States were in attendance at the exhibition this year and purchased breeding animals there.

#### HORSES.

A large number of horses, mostly for use in hauling street cars, go from here yearly; also some for carriage use. Fine matched teams for carriage driving are getting very scarce, however, the demand having exceeded the supply.

#### CATTLE.

The exports of cattle from here to the United States are not large, amounting in value the last year to but \$79,366.50, most of them going to the Buffalo market, with an occasional shipment to New York.

#### WOOL.

A large quantity of wool is exported annually from this consular district to the Eastern States.

The most of it goes to Philadelphia, Pa., with an occasional shipment to Lowell, Mass.

The export trade in wheat, oats, potatoes, apples, and other agricultural products is small. Two or three years ago a large amount of potatoes were annually exported to the United States, but at present the trade amounts to but little.

#### EMIGRATION.

Emigration from this district to the United States progresses steadily. During the year just closed 443 emigrant certificates have been issued at this consulate, and personal effects valued at \$136,170.36 have been given free entry into the United States.

The class of people thus emigrating consists of farmers, carpenters, and laborers. A few of these people are from England, but by far the largest number are Canadians, and the idea seems to prevail among them that employment can be more readily obtained and their condition bettered generally by going to the "States."

The business outlook for the coming year is not considered a bright one.

No improvement in the condition of trade over that of last year is looked for, and it is not probable an increase in the exports from this consular district during the next year can be expected.

Money is plenty, and can be readily obtained in large amounts, on good security, at 5 per cent., although the prevailing rate of interest is 7 per cent.

CHARLES W. WAGNER,  
*Consul.*

UNITED STATES CONSULATE,  
*Toronto, October 16, 1885.*



## CAPE COLONY.

REPORT BY CONSUL SILER ON THE WOOL INTERESTS OF SOUTH AFRICA.

## PRODUCTION.

For more than a quarter of a century wool-growing has been deemed one of the foremost industries in South Africa. Indeed, prior to the introduction of the domestic ostrich-feather traffic the exportation of wool exceeded in value the aggregate of all other colonial exports. As far back as the year 1855 the colony exported over 12,000,000 pounds of wool, valued, at the prices then obtaining, at a little more than \$3,000,000. The production annually increased till 1872, when it attained the maximum and amounted to 48,822,562 pounds, valued at \$15,938,510. Since that period there has been a continuous falling off in the amount of wool produced, and last year the amount exported only reached 37,270,615 pounds, valued at \$8,488,115.

The amount and value of wool exported from Cape Colony during the last thirteen years, beginning with 1872, were as follows:

Year.	Pounds.	Value.	Years.	Pounds.	Value.
1872 .....	48,822,562	\$15,938,510	1879 .....	40,087,593	\$10,495,137
1873 .....	40,893,746	13,190,540	1880 .....	42,468,662	11,822,533
1874 .....	42,620,481	14,849,220	1881 .....	42,770,244	10,618,496
1875 .....	40,839,674	13,898,231	1882 .....	41,689,119	10,085,599
1876 .....	34,861,839	11,090,471	1883 .....	38,029,496	9,697,688
1877 .....	36,020,571	10,865,702	1884 .....	37,270,615	8,488,115
1878 .....	32,127,167	8,803,298			

During the decade preceding 1872 the production of colonial wool had increased fully 50 per cent., and during the same period the number of domesticated ostriches had increased from a score or two to over 20,000.

## • OSTRICH FEATHERS.

Then a crisis came in the wool-producing industry in South Africa. Farmers became infatuated with ostrich farming. So fabulous were the prices then current for ostrich feathers that a speedy fortune seemed in every man's grasp who possessed himself of a few ostriches. Wool-growing was deemed too slow a way of making money; the flocks were neglected, and all interest was centered in the ostrich camp. The result of this mistake on the part of farmers is now painfully manifest. They overstocked the ostrich-feather markets of the world, and feathers which readily sold for \$250 per pound five years ago will barely bring \$50 at the present market rates; and I hear of farmers who have lately turned their ostriches loose upon the plains, because it no longer paid to feed and care for them. Thus the hope of sudden riches from this source has died out, and the farmer again turns his attention to his flocks.

## WOOL CLIPS.

Through years of neglect these flocks were allowed to run uncared for and to shift for themselves; no attention was given to breeding; the good and bad mixed together, resulting in deterioration and disease,

and consequently a reduction of both quantity and quality of the production of wool. Quantity, however, at this time, seems to be a matter of less serious moment to the colonial farmer than quality; for Cape wool, for a year or two past, has been quoted in the London market at from 2 to 4 cents the pound less than prices offered for Australian and other British colonial wools. This is partly accounted for by the fact that the Cape farmer is compelled to shear his sheep twice a year, in consequence of a disease prevailing amongst Cape sheep, to which I shall more particularly refer presently, thus making the staple shorter than full-year grown fleeces. This shearing twice a year is a comparatively recent custom, and it will be observed by comparing the production and value of the years 1883 and 1884, in the foregoing table, that while the former was only 2 per cent. less in 1884, the value was 12 per cent. less. But there are other causes, independent of short clipping, which tend to depreciate Cape wool in foreign markets, and the principal of these causes is the careless and untidy manner in which it is packed and prepared for market. Cases are exceptional where any effort is made to sort or classify the wool while it is being baled; the good and bad, clean and dirty fleeces are thrown in together, thus rendering it impossible for purchasers to form any correct estimation, by any obtainable sample, of the quality of wool contained in a bale. This, it would be supposed, is within the reach of every wool-grower to remedy, and so it is, and it is from sheer carelessness and indifference to their best interests on the part of the farmers that it is not remedied.

#### SCAB DISEASE.

But the most serious obstacle with which the South African sheep farmer has to contend is a sheep disease known as the "scab," and from which few Cape flocks are entirely exempt. This disease is said to be caused by a live insect, which burrows into the skin of the animal and deposits its eggs there, producing sores about which the wool drops off, the sheep becomes scruffy and emaciated, and unless speedily relieved soon dies. A sheep thus attacked is readily detected, owing to its constantly biting and scratching itself. Opinions here differ amongst sheep farmers with respect to the causes which superinduce this disease. Flocks in low condition are more subject to it than those in full flesh, while the latter do not escape it, though the malady develops in a less virulent form than among the former. All agree that it is contagious or "catching," and that one infected sheep will soon disease a whole flock of healthy ones.

#### REMEDIES.

It is also agreed that by the exercise of proper care and application the disease is curable. The remedy in universal use is one or the other of the various kinds of sheep dip. Some use a decoction of lime and sulphur, others tobacco juice, and a great many use Cooper's dipping powder, which is considered the best and cheapest. The cost of this preparation per sheep is about 1 cent when the wool is short, and twice that when long, say six months' growth.

Either of the above-named remedies, it is claimed, will cure the scab disease if used with care and discretion. As soon as a sheep exhibits indications of the disease it is taken at once and dipped. Then after from fourteen to eighteen days elapse, the sheep is again dipped, and should its vitality prove sufficient to withstand the two operations it is returned to the flock.

Dipping at shearing time has now become general in practice with sheep farmers here, whether scab is known to exist in flocks or not. Should it not exist, the dip is used as a preventive; and should the disease be then in an incipient form, the dip will destroy it. The argument used in favor of a second dip, fourteen to eighteen days after the first, is that the insect, after depositing its eggs under the skin, returns to the surface, and that the first dip kills the parent insects but not their eggs; the latter are supposed to have been hatched out within the period above mentioned and likewise returned to the surface, and the second dip is used for their destruction before they have had time to develop to maturity.

Now, if this great scourge to the farmers can thus be cured, and the loss thereby saved to the country, the question naturally arises, why is the disease not stamped out and eradicated from the colony? The answer to this question would apply to more subjects than one. There is no common interest, unanimity of feeling or action manifest in any particular industry or class of citizens in South Africa. Should Farmer A be blessed with bountiful showers, he will fervently pray that the clouds may exhaust themselves before reaching his neighbor, Farmer B, because, he reasons, if his crops are good and his neighbor's bad, he may realize his own prices for his produce, whereas were crops generally good he would reap less profits from his year's labor.

#### LEGISLATIVE ACTION.

The same sentiment seems to prevail among the sheep-farmers. A bill was introduced in the last session of the colonial parliament which, if it had passed, and its provisions strictly enforced, would no doubt have effectually extirpated the scab disease in this colony. The bill provided for inspectors to be appointed throughout the sheep-farming districts, whose duty it should be to visit every sheep farm at given intervals and inspect the flocks, to compel dipping when disease was discovered, and to enforce the segregation of diseased animals from the healthy. It also imposed a fine on any sheep-farmer in whose flocks the scab disease might be found after the lapse of a certain period. The bill was almost identical with a law now in operation in Australia, where the scab disease at one time prevailed to an alarming extent among sheep, but is now almost unknown. But here the spirit of selfishness crops out. A few isolated farmers, more fortunate than their neighbors, very possibly through superior care and management, have not been troubled with the scab disease in their flocks, and these lucky farmers, to a man, used all their energies to defeat the bill. They succeeded so far as to have its further consideration deferred till next session of parliament.

#### LOSSES INCURRED.

The loss sustained by the colony in consequence of the disease above described has been enormous; by many shrewd calculators it is declared to have reached from \$3,000,000 to \$4,000,000 annually for some years past.

In demonstration of this loss the intelligent African sheep-farmer would use a line of reasoning like the following, taking the years 1882-'83: In 1882 the exports reached 41,689,119 pounds, for which \$10,035,599, or about 24 cents per pound was received. In 1883 38,029,495 pounds were sold, for which \$9,697,688, which averaged a

little over 25 cents per pound was realized. Now, admitting that cape wool has depreciated 4 cents the pound as compared with the present prices of wool in other colonies, this depreciation is attributed directly or indirectly to the scab, which necessitates a clip every six months, and we have 38,029,495 pounds of wool at 4 cents per pound, loss \$1,521,179. The loss in 1883, by decrease from the yield as compared with 1882, of 3,659,624 pounds of wool at 24 cents per pound, is \$878,310.

The loss of 3,659,624 pounds of wool, taking a very low average of 6 pounds of grease, or 3 pounds washed wool for each sheep, would represent the loss by death of 1,219,874 sheep, of which half the number are pretty sure to have died from the scab, and we have 609,937 sheep, whose loss at, say, \$2.40 each, would be \$1,463,849. To the above would be added for articles imported for the cure of scab \$70,000, making a total of \$3,933,339.

Whether this form of putting the case would stand the test of close criticism or not, I shall not undertake to say; but I am quite confident that the facts deducted thereby are not far out of place.

JAMES W. SILER,  
*Consul.*

UNITED STATES CONSULATE,  
*Cape Town, September 18, 1885.*

## COLOMBIA.

### REPORT BY CONSUL ESMOND ON THE MARKET FOR AMERICAN COTTONS.

Trade at present in cotton goods between the United States and the State of Antioquia, of which Medellin is the capital, amounts to very little.

In the export line of rubber, hides, and coffee, fully 75 per cent. is forwarded to the United States, there being a more "firm" and profitable market for them, especially for rubber and hides; but the gold, which by far is the most important item of exportation, is sent to Europe in payment for the large amount of trade carried on with England, France, and Germany.

While cotton goods are the strength of the import business here, the United States evidently cannot at present compete with England in these articles for various reasons.

(1) The United States commercial firms dealing with this market are not willing to allow business houses in Medellin above 90 days' credit from date of shipment; and (2) the manufacturers of the States do not feel the necessity of adapting themselves to the requirements of the Antioquia trade.

### CREDITS.

As an explanation of the first, I will say that trade in Medellin is carried on by importers almost exclusively on credit with these conditions. The terms given here to their town and country customers are generally those called two or three "sizes," which means payable in two or three installments of six months each.

It must be acknowledged that this most risky system of granting credit goes far to discourage foreign firms in giving heavy sums on credit here, even at ninety days; on the other hand, however large the capital of an importer in Medellin may be, the heavy outlay needed to

accommodate his numerous customers in the town and country on such long terms of credit, many times prevents him from dealing with a foreign house upon a cash basis.

Another important point in regard to the terms of credit given by a foreign house is, that merchandise from the States or Europe oftentimes takes six to nine months to arrive, on account of the delay at times in the custom-house at Barranquilla, owing to press of business there, or to a dry river or lack of beasts to bring the goods from the river to Medellin. Sometimes all of these drawbacks may come together and delay bales up to a year, and a ninety days' credit business means "pay for your goods sixty days or six months before you have received them," and a consequent loss of interest, &c., the interest here averaging 8 per cent. per annum.

English houses allow, as a rule, six months credit; some firms nine months; French and German, as a rule, six months.

#### AMERICAN GOODS.

In spite of these drawbacks there are houses here, with quite a heavy capital, capable of dealing with good American firms at ninety days and even cash, but reason number two, above indicated, has already proved to one house that business in cotton goods from the States was a bad one, and I think a loss is sure to follow any importer who should order cotton goods from the States of the style, finish, and weight, as now manufactured there.

If American manufacturers were as desirous for business here as are the English, they would study in the first place the requirements of this market as regards, 1st, the finish of the several cotton articles consumed here; 2d, the width and length required, according to the quality of the article; and, 3d, the taste for patterns.

The American manufacturer does not accept an order except for such articles as he may have in "stock" or ready made, simply because Medellin orders, as a rule, may not be large enough to induce him to make the articles expressly; and as their articles have heretofore not been suited to the market, it is reasonable to think that they have no idea of its requirements; whereas an English manufacturer accepts, and has accepted for years, all orders, however small, whenever there has been the least profit to be made.

United States cotton goods are not used here, solely because, 1st, they are not given the light finish which is indispensable, because the national, state, and district duties of importation are heavy, and are levied upon the gross weight of each package. As English goods are finished very light, they turn out much cheaper in Medellin (even when costing more per piece at factory), because of there being more pieces in a bale; 2d, in this country the different qualities must have a certain width and length, which the Americans do not appear willing to give.

The taste can easily be remedied if the above difficulties can be obviated and prices compete with English.

#### NEEDS OF THE MARKET.

All the remarks above tend to a simple thing, that all packages must contain as many pieces of a certain article as is possible in a given gross weight—say 160 pounds—which must not be exceeded, since they have to be brought upon mules' backs, two bales to each mule.

In white goods or shirtings there are some six qualities, differing in



price, which increases with the following widths:  $\frac{1}{2}$  31,  $\frac{2}{3}$  31,  $\frac{3}{4}$  31,  $\frac{4}{5}$  31, and  $\frac{5}{6}$  31 inches, all pieces being 24 yards in length. For widths 31 inches and upward a "pure finish" is more acceptable. Each bale contains 140 pounds net, i. e., exclusive of packing material.

I inclose herein samples of the four leading qualities, width, and prices paid in Manchester, English pence reduced to American cents:

No 1 comes with 42 pieces per bale, at \$1.20 per piece; No. 2 comes with 44 pieces per bale, at \$1.14 per piece; No. 3 comes with 28 pieces per bale, at \$1.56 to \$1.58 per piece; No. 4 comes with 74 pieces per bale, at 70 cents per piece.

#### PRINTS OR COLORED CALICOES.

Widths  $\frac{1}{2}$  are 22 to 23 inches wide, 30 yards to a piece; widths  $\frac{3}{4}$  are 28 to 29 inches wide, 26 yards to a piece.

The remarks about the weights and finish of white goods are applicable to prints.

The number of whites and prints that are introduced yearly into this city alone amounts to from 6,000 to 7,000 bales. This estimate is considered low. It is judged that this city consumes about one-tenth of the imports of the country.

#### PACKING OF THE GOODS.

Around the goods ordered are placed two good woolen blankets, the object of which is not only to protect the goods, but they by themselves in bales pay a higher rate of duty than cotton goods, and by this method of packing the importer receives two to four woollens at the duty on cottons.

Over the blankets is placed a "coleta" 56 inches wide and 3 yards long—quality as sample inclosed. This coleta has a ready sale here. (Bagging pays less duty than coleta and has no sale; for this reason it is imperative that coleta of this quality be used, for whatever be the nature of the packing, it pays the same duty as the highest rate of the goods therein inclosed.)

Over this coleta is placed oil-cloth of the quality of samples inclosed, 44 by 70 inches, and over this oil-cloth another coleta, and around this bale so made are bound bands of light and very good iron.

Packed as above indicated and prices and lightness of finish equal to the English, there is a good field here for American cottons.

Notwithstanding a loss having been made in the first ventures, owing to false widths, weights, and bad packing, the quality of the American goods was at once recognized and admitted as being better than the English, and to-day there are in this market English goods bearing the mark which the American goods referred to bore, so quick are they to provide for their customers' wants when they find what they are.

Should any manufacturer in the States resolve to make the goods desired for this country, he can be placed in communication with a house here that has for some years sold more white and print goods in the United States of Colombia than several other houses combined.

E. R. ESMOND,  
Consul.

UNITED STATES CONSULATE,  
Medellin, September 9, 1885.

NOTE.—The samples transmitted with Consul Esmond's report are at the Department of State.



## FRANCE.

In transmitting a translation of the replies of the Rouen Chamber of Commerce to questions regarding the causes of the trade depression and the remedies, propounded by the minister of the interior, Consul Charles P. Williams writes, under date September 16, 1885: "Legislation in France is strongly influenced by and is shaping its course according to these views. The gravity with which the subject of taxation is approached by conservative business men indicates their earnestness in the belief that the crisis calls for prompt and united action. Peculiar stress is no doubt laid by the chamber of commerce in its replies upon the importance of legislative action, as it was addressing a Government cabinet officer."

**Question.** What is the condition of commerce in your district compared to what it was twenty or twenty-five years ago?

**Answer.** The principal industry of the region is the spinning and weaving of cotton rouenneries and indiennes. This industry has had great difficulty in holding its own for the last twenty-five years, notwithstanding the improvement in machinery. It received a heavy blow by the commercial treaties of 1860, which left it insufficiently protected against foreign competition. It will only revive when the government raises the taxes upon foreign articles in France and her colonies. The distress in agriculture is another cause for depression in the industries of this district. The industry of chemical products tells the same story.

**Question.** In what proportion have the wages of workmen increased in the same period? What are the prices of the principal articles of consumption compared with those of from twenty to twenty-five years ago?

**Answer.** The wages of workmen have increased from one-fourth to one-third, according to the industry; the salaries of employés one-fifth. During the same period the prices of bread, sugar, clothing, linen, and furniture have fallen. Meat costs one third more than it did twenty-five years ago. It would not be just to say that the cost of living has increased more than the workmen's wages; but the truth is the workmen do not live in the same manner, particularly those of the cities, as they did twenty-five years ago.

**Question.** What is the condition of workmen and employés in the cost of lodging and in the healthiness of their houses?

**Answer.** In large cities the crowding of the workmen and the increase of wages consequent upon greater demand for labor, especially of those employed in building, naturally explain the advance of rents. Is it the proprietor who, in increasing rents, forced the workmen to demand higher wages, or is it the workman who, in raising his wages, obliged the landlord to augment his rent? The second supposition is much the more probable. It is possible that the lodgings have become more comfortable and healthful and so more expensive. This is of less consequence to the better-paid workman, if he is willing to work well every day, than to the employé whose salary has rested stationary or has not increased in like proportion.

**Question.** What influence have the railroads and canals on the commerce of your district? What improvements do you think desirable and profitable?

**Answer.** Those interested in the welfare of this district have long suffered from the arbitrary tariff on the transport of merchandise which the railways have adopted to favor the competing port of the coast to the detriment of Rouen. For two years the company who directs the system of the district seems to have put the tariff on the basis that the chamber of commerce has always claimed—that of a certain rate per kilometer. The chamber of commerce of Rouen is opposed to the tariff (called that of "sagacity") by which the foreign products compete with the French and reverse the conditions acquired by certain industries through international commercial treaties.

**Question.** What influence has the competition of the large Paris shops upon your local dealers? What is the condition of your large and small retailers?

**Answer.** The communication between Rouen and Paris has always been so easy that the local retailers have never attempted to compete with those of Paris. It is certain, however, that the attractions of Parisian shops, particularly where novelties are concerned, still diminish their business.

**Question.** What are the effects of credit institutions? Do co-operative societies exist in your department?

**Answer.** None of these societies exist in the district of Rouen. This region is well provided with banks for commercial purposes. Many established within four or five years have closed up. Credit is alone wanted for the agriculturist.

**Question.** What observations have you to make concerning the law on the societies, on trade-marks, on patents, on octrois, and on the taxes which seem to you to touch commerce most particularly?

**Answer.** The law concerning associations actually under discussion appears to moderate in a proper manner the abuse of selfish stock jobbery, conducted in disregard of the general interests. The law on trade-marks gives cause for no observations. No alterations in the patent law would satisfy every one. There is always an opposition to taxation in any form, and the patent pays easily for itself in prosperous times. This is the general character of taxes and the less they are touched upon the better.

This prudence is particularly useful in what concerns the octrois, which are attacked without consideration of the results of their suppression. Without going deeply into the question, common sense says that it would be necessary to find an equivalent in another tax which would fall more or less directly on the same article, and it does not need much experience to know that the suppression of the octroi would not lower the prices, but that the difference would go into the dealer's pockets. The suppression of the tax on wine would not help those for whom it is asked, for they buy only at retail. Direct taxes have not this inconvenience of impersonality, and their reduction or increase is sensibly felt. They touch commerce, personal property. Their influence is felt particularly on agriculture, whence undeniably a pressure extends to the entire country. Here is where reductions should be made, if possible.

**Question.** Have you commercial schools? What results have they produced? How are modern languages taught? How do they recruit the workmen and employés? What is the form of apprenticing?

**Answer.** At Rouen there exist commercial and also industrial and professional schools, and in them the higher practical studies have turned out some scholars who have obtained good positions. The teaching of languages is more theoretical than practical, unless allowed a residence in a foreign country (which few are capable of having). More time should be given to speaking and less to translation. This order is reversed in our schools, much to the detriment of the pupil. The commercial employés are recruited from those whom elementary education raises above manual labor. There exists in Rouen an apprenticing school, which does not push its scholars far enough to make first-class workmen of them; the ordinary routine of these scholars is to prepare for the art and professional schools. Workmen learn their trade in the workshops, but there has not existed for some time a contract of apprenticeship between patrons and workmen, and, as a result, the apprentice is at liberty to go or to be sent away, and is no longer in a position to acquire the desirable professional knowledge.

**Question.** Have you reserve fund companies, and insurance, mutual-help, &c? What is their situation? What results have been obtained?

**Answer.** Independent of philanthropic societies, founded in Rouen by a large number of patrons in their work or otherwise, there exists in Rouen, in the district of the chamber of commerce, a certain number of mutual helps, of which some, as "Emulation Chrétienne de Rouen," and "la Prévoyance mutuelle," both founded in 1864, would serve as examples, by reason of their brilliant results, to all other institutions of this sort.

**Question.** What are the legislative and other measures that seem to you necessary to ameliorate the situation of commerce and industries not only in your district but in France?

**Answer.** The first of these is the lowering of taxes. Failing in this, and considering the existing state of finances, duties should be raised on grains, and on cotton thread and cotton goods in France and her colonies. What is to be done in this respect should be sufficient to procure to agriculture and the industries the power to compete with foreign competition, and at least insure our not producing at a loss.

**Question.** By what means could exportations be developed by foreign chambers of commerce, traveling agents, consular agents, &c.?

**Answer.** So far as the industries and commerce of the district of the chamber of commerce of Rouen are concerned, no economical administrative measure would increase the exportation of their products to foreign markets, South America excepted, perhaps, because England, notwithstanding the improvements of our machinery, can furnish these articles cheaper than we can, and at present we cannot hope to cheapen manufacture by lowering wages, more than by diminishing taxes, which are the direct causes of our inferiority. We cannot repeat too often that our home markets should not be given up to the foreigner. Duties should be imposed on foreign articles equal to what crushes us. And it would be only just that our colonies should not be allowed to push aside the products of our land, as is done by opening freely their markets to our competitors. The enormous sacrifices which we make to found these col-

onies should not be thrown away, and that is what will happen if the Government does not stop the entry of foreign articles by imposing higher taxes.

Question. What is the situation of foreigners in your district as principals, employés, and workmen; what do you think are the best means of triumphing over foreign competition at home and abroad?

Answer. Strangers in Rouen are overshadowed, and their rôle without interest. As to the means of competing with foreign productions, there is no other way than the change of our economic régime. Not that we ask for an excess of protection after the excess of free trade which has ruined the country. We ask that the reform of our tax system be studied, not by theories, but with good sense, with patriotic sentiments, and with the wish to accomplish practical results.

To recapitulate, we suggest—

A duty on grains brought into France; more treaties of commerce; the resumption of our liberty of action at the expiration of the term of the existing treaties; and duties to be put upon foreign articles imported into the colonies that we now hold and may acquire in the future, so that French products may not be excluded as they are to-day.

SILK CONDITIONED AT LYONS.

Consul M. J. Newmark, Lyons, France, sends the statistics of the silk-condition houses of the various countries of Europe for two years, as indicating the world's consumption of silk in that time. The amount of worked silk conditioned was:

Country.	1883-'84.	1884-'85.
	<i>Kilograms.</i>	<i>Kilograms.</i>
France .....	2,993,789	2,581,687
Germany .....	712,768	582,852
Austria .....	92,541	75,174
Italy .....	2,549,464	2,195,319
Switzerland .....	1,69,407	677,826
Total .....	7,417,969	6,312,658

Only trams and organzines are included in the statement. (Lyons, September 16, 1885.)

GERMANY.

ANNUAL REPORT OF COMMERCIAL AGENT SMITH, MAYENOE.

CONDITION OF TRADE.

The reports of the various chambers of commerce in this neighborhood for the year 1884 having been recently published, I herewith make my annual report for the present year, based thereon and from information drawn from other sources.

The general state of trade in Germany at the present moment and during the past year may be characterized as fair, and the general political condition of the country as satisfactory, but business seems to be duller now than it was last summer. No material change over 1883 has taken place. "Much labor and little profit" seems to be the general expression regarding the year. There was much activity manifested in industrial circles, but prices were flat, and had a downward tendency. In the export trade bad times in the United States and retaliatory customs tariffs in Europe, as well as sanitary measures, called forth to prevent

the spread of cholera, united to affect prices somewhat unfavorably. The home market was very receptive, but the supply exceeded the demand. Attempts were made by combinations to check the decline of prices, but in most cases proved fruitless, it is said. Manufacturers had therefore to decrease the costs of production, which, of course, added to the general pressure. Germany, however, has been better situated in the leading branches of industry than the other industrial countries of the world. No large discharges of workmen took place in 1884, and a lessening of wages occurred in comparatively few instances. In the retail trade the small country merchants hereabouts complain that they are being very much injured by co-operative societies, which are untaxed, while they must render unto the State tribute money, and that they are thus trammelled in their competition with them.

The grain crops in 1884 in this vicinity were good, and this year, according to all accounts, magnificent; but the grain dealers and millers had to contend against unfavorable conditions, due to falling prices in the market. The vintage, which is one of the main objects of consideration among the people of the valley of the Rhine, was very good last year, and excelled that of 1833. Germany's condition on the whole, therefore, must be looked upon as favorable commercially and industrially when compared with several other countries.

#### WHEAT AND THE TARIFF.

Grain was much cheaper than for some years, made so by bountiful harvests garnered the world over. The world was surprised by the fine harvest reported in every direction. There were plentiful supplies of wheat from America, Russia, and India. Notwithstanding high freights, America sent large quantities of wheat to England and the Continent. India also furnished its quota, and Russia and the Danube countries, large amounts. Prices thus became very low, and would probably have been even lower had it not been for the agitation for increased duties on grain, which made more buyers in anticipation thereof.

For several years the large farmers of certain parts of Germany have kept up a strong and incessant agitation for increased duties on grain, particularly on wheat, to neutralize, if not to shut out foreign competition, and in the early part of the present year they had the satisfaction of seeing their wishes granted to the degree of an increase of duty on wheat from 1 mark (23 cents) to three marks per 100 kilograms, and on rye to the same amount. The advocates of measures for their relief have pictured their condition as an alarming one and as utterly unbearable without increased protective duties on cereals. Whether the duties fixed will afford the protection and relief sought is doubtful. Under the argument that the foreigner pays the grain tax and the native farmer receives the protection, the Reichstag agreed to the new duties by large majorities.

#### AGRICULTURAL INTERESTS.

Concerning the situation of the farmers in this region the chamber of commerce at Coblenz thus expressed itself:

No noteworthy changes have taken place among agriculturists. The last few years have indeed brought generally tolerably good harvests, but the decline in values of various leading products have diminished their salutary influence, and the difficulties with which a large part of our farmers have to contend, continue unaltered.

The abundant and good harvests of the present year will probably keep grain prices low, and the general condition of the large farmers not be materially improved.

Rye experienced no such fall as wheat; in the first place it had not the same foreign competition to struggle with, and in the second place the crops before harvest time exhibited signs of rust, which had considerable effect upon the product expected, which turned out to be quantitatively less than that of wheat.

The average price during 1884 was about that of 1833.

Barley and oats turned out well.

With respect to wheat, complaint is made over the increasing cultivation of English wheats which give larger products but not so good baking flour.

During the first six months of the present year the average prices, as officially reported, were as follows, per 100 kilograms:

Month.	Wheat.	Rye.
January .....	\$39 00	\$34 50
February .....	40 00	35 50
March .....	40 50	35 00
April .....	42 00	36 00
May .....	42 50	36 25
June .....	41 50	35 50

The potato crop, which always exercises a decided influence upon the price of grain, was very good, especially in quality, although not so abundant as in the foregoing year.

Fruit was in general below the average. The apple trees of this vicinity are very much troubled by what is called the *blutlaus* (*Schizoneura lanigera*), which constantly increases its devastations.

#### VINE PRODUCTS.

With regard to wine it is said that the vintage of 1884 belongs to the category of the better class of medium years and excelled that of 1883, which was the best for five or six years back, except, maybe, in a part of the *Auslese* (selected) vintage. In all other respects it was better. Both the years 1883 and 1884 brought forth much very good wine, and exercised consequently a very beneficial effect upon vine-dressers. The acidity of the must of 1884 was in general slighter than that of 1883, and the specific weight was therefore somewhat heavier. Examinations of must from ordinary vineyards in the Rheingau showed an acidity of 6 to 8 per cent., and a strength, according to Oechsle, of 95 to 80 degrees. The products of the best vineyards gave a must weight in many instances above 100 degrees.

In the matter of quantity, various districts, as Eltville, Erbach, Hatzenheim, Mittelheim, Oestrich, Rauenthal, Geisenheim, Johannisberg, and Rudesheim, had over half, in part a full, vintage, while the majority of the remaining distinguished districts had only half a vintage. On the Nahe the amount of sugar in the products of ordinary vineyards was 75 to 85 Oechsle, the acidity  $7\frac{1}{2}$  to 9 per cent. In better vineyards the relation was 85 to 100, with  $5\frac{1}{2}$  to  $7\frac{1}{2}$  per cent. acidity. The prices paid for the better sorts of Rheingau must averaged 80 to 100 marks (\$19 to \$23) per ohm (42 gallons). Under 80 marks no noteworthy sales were made, but beyond 100, from 120 to 200 marks (\$28 to \$46) per ohm, much must of the better quality was sold. The prices realized were



high, and remunerated producers well. For sixteen years, since 1868, poor vintages have been the rule in the Rhineland, and the consequence is that tolerably well distinguished products command a higher figure than they ordinarily would, and far above what they would had there been a series of excellent vintages during the past few years. This fact has had a decided influence upon the wine trade of Germany, both at home and abroad.

The chamber of commerce at Wiesbaden laments that under the law of 1879, against the adulteration of foods, &c., the grape growers and wine dealers of the Rhine are prevented from openly so manipulating the vintages of bad years as to make an acceptable wine out of poor stuff. The foreign consumers, it adds, call for a cheap wine of moderate quality which should be pretty much the same year in and year out, and not vary—sweet one year and sour the next—which is to be expected, as good vintages are the exception and not the rule in this neighborhood. It thinks that the restrictions of the law as applying to wine should be removed, so far as the public health would not be endangered thereby.

#### PHYLLOXERA.

In the vineyards the phylloxera still continues troublesome, and from time to time small bodies of them are discovered. During the last summer large districts in the neighborhood of Linz, on the Rhine, were discovered to be infected with the pest, which sent a tremor through the vine-dressers of the Rhine and Moselle. It would seem that the cultivation of the vine upon the Rhine and Moselle is so threatened by the devastations which have occurred, that the most energetic measures will have to be taken to keep the insect from becoming extensively spread all along these rivers. The German "Weinbau-Verein" (Vine-culture Association) proposes, as the means of a radical cure of the plague and prevention of its further progress, the complete destruction and disinfection of districts visited by the pest and the creation of a safety zone by the removal of the comparatively few vines between Neuwied and Vallendar. Such a course of action, it is thought, would offer a great obstacle to the advance of the enemy up the Rhine, and would not call for an altogether great sacrifice. The officials are disposed to take energetic measures to stamp out the insects wherever they appear, but a large portion of the people affected thereby, especially the owners of small vineyards, meet the efforts of the authorities with indifference or actual hostility.

Manufacturers of sparkling wines did a fine business and received from the Reichstag last spring further protection in an increase of the duty on champagnes and sparkling wines from 48 (\$11) to 80 (\$19) marks per 100 kilograms.

The quantity of wine exported from this consular district to the United States during the year ending June 30, 1885, amounted in value to \$566,224, against \$427,409 during 1884.

#### LEATHER.

Leather is an article very much manufactured in this part of Germany, and largely exported to the United States. Although no great change took place in the condition of the tanneries, business is said to have been better than in the preceding year, and manufacturers of sole and calf leathers obtained better prices. Profits on tanned hides were slight, because raw hides were kept up in price by speculators. Horse leather and boot-leg factories had an abundance of work. The



shoe factories were kept busy, and are gradually pressing hand makers to the wall. They met with better results at home and increased their exports. In this industry German manufacturers have made great progress during the last ten years, and large factories have been founded that produce first-rate goods. Not only at home is the trade increasing, but shipments are made abroad, to Holland, Belgium, Sweden, and Denmark, and even to the distant countries of South America and Australia. The field to be worked up at home is still an immense one and very promising. Last year the importation of shoes was 3,765 double centners\* against 4,006 in 1883, while the exports rose from 12,617 to 13,438 double centners. The protective duty of 36 marks (\$8.50) per 100 kilograms on sole leather and 18 marks on certain other sorts has had a beneficial effect upon German leathers in their competition with American and Australian leathers. The price paid for young first-class tanning-bark, thirteen to fifteen years old, was 7 to 8 marks (\$1.66 to \$1.90), against 3 to 4 marks (71 to 95 cents) for twenty to thirty years' old stuff. A great deal of foreign bark is consumed in Germany—Hungary alone furnishing about 300,000 double centners.

#### GENERAL EXPORTS.

The exportation of agate ware to the United States is no longer as profitable as it was. In agates business with our country is very dull, and sales have been made at forced prices.

Chemicals and aniline colors form another important item of export to our country from this consular district. The chemical establishments have been run under very unfavorable circumstances, as has been the case for several years past, caused by overproduction and sluggishness in textile markets. A heavy fall in prices has occurred. In aniline colors business was very bad, the crisis in America, the cholera in Italy, and the French-Chinese troubles having a very appreciable effect upon them. The prices for alizarine were in a constant state of decline. There was but little demand for oxalic acids, and prices were weak. Competition in these acids makes their manufacture but little lucrative.

Cement is shipped to our country in considerable quantities from near here. Last year there was an increased exportation of cement to foreign ports. The home consumption was greater. German cement is shipped to Switzerland, Belgium, Holland, Dutch Indies, and China. This industry dates practically from 1852. At the present time there are said to be from 50 to 60 considerable works, which manufacture together nearly 5,000,000 barrels.

Sugar had to contend during the whole year with an almost unexampled decline in prices. The production of sugar has gone to such a length as to make its manufacture unprofitable, bringing about a crisis in the trade.

#### METAL INDUSTRIES.

On the subject of iron, copper, lead, zinc, and silver, I have extracted the following from the report of the Chamber of Commerce of Coblenz.

Mining, smelting, and metal works in their entirety have met with less success than any other branch of industry. The prices for their products, which at the commencement of the year were already low, went further down from month to month, until they forced limitations of production, which had been postponed as long as possible.

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\* A centner=110.5 pounds avoirdupois.

Iron mining was not satisfactory. The incessant shrinkage of prices has long since created a condition of things which has brought a large number of mines to the verge of a cessation of work.

The depression in the iron trade has continued unchanged in all the chief producing lands. In no land and at no time have supply and demand balanced each other. The first largely preponderated, and rendered any noteworthy rise of prices impossible. The different sorts of iron most largely produced reached almost everywhere a point in price to which they had never descended before. With this state of things prevailing everywhere it was certainly a satisfaction to Germany to know that she suffered the least of all chief producing countries. Although the iron works, with slight exceptions, had to struggle with great difficulty, there were almost nowhere any large discharges of workmen. There was an increased production in raw iron of 200,000 tons, but no increase of value was connected with it, as almost all sorts were affected to a greater or less extent by strong declines in prices. The cause for this unfavorable state of things is to be sought for in the main in the situation of the international markets. England, North America, France, and Belgium all labored under a strong crisis. The consequence was that a number of works became overstocked and had to discharge workmen or decrease their wages. This overstocking with lessened markets led to a keen strife for business, which made exporting unprofitable, and only possible with more or less loss. Had it not been for the protective tariff duties of the Empire, which gave the market at home a certain advantage, this market would have been overwhelmed with cheap foreign products and a part of the iron works shut up.

Technically, as well as financially, well-conducted steel works and many kinds of iron foundries and machine works met with satisfactory results; but the production of raw iron, manufacture of wire, and making of ship-iron, bar-iron, &c., were very unprofitable.

The course of business on the Middle Rhine was especially unsatisfactory. The furnaces of that part of the Rhine found themselves unable to compete in the production of puddle iron with those of the Lower Rhine and Westphalia; consequently late in the autumn of 1884 the last furnace to put puddle iron on the market was closed up for this purpose and used for the manufacture of foundry iron.

Bar-iron met with a rather active demand, but had to decline in bottom price from 118 to 110 marks (\$28 to \$26), and thereby reached an unprofitable point.

Cast iron had a better market than any other article in the metal line.

Copper fell about 15 per cent. in price. For copper the year throughout was bad. A recovery of the market is not to be thought of while the present overproduction continues. It does not pay to mine it, and here and there work in the mines has come to a standstill.

*Lead.*—Among the long series of years of which the lead industry has had to complain, that of 1884 was the most unfavorable. A reasonable interest on invested capital has nowhere been obtained, and in many instances work has been carried on with loss, either direct or indirect. During the first six months of the year the price of soft lead declined from month to month, but a standstill took place in the latter half of the year, yet prices remained, with slight variations, at a lower figure than ever before.

The zinc market was very analogous to that of lead. The production was approximately that of the foregoing year, and the market active. There was a decline in the average price of about one mark.

*Silver.*—The production of silver in Germany increased about 5 per

cent., and met with regular sales. Reports respecting the repeal of the so-called Bland bill in the United States, and of the unfavorable state of the negotiations regarding the Latin Monetary Union, although they turned out to be groundless, or at least premature, had a prejudicial effect upon the market and brought about fluctuations. As, however, the conviction gained ground that a change in the silver question was not to be expected, and that the German Government would hold its position, the price of silver gradually declined during the last months of the year.

**Tin.**—Raw tin remained low in price. The rolling-mills had to complain generally over lack of orders, in consequence of slight requirements among boiler-makers, bridge and ship builders and pipe rolling-mills. Prices correspondingly declined, and a reduction of work was unavoidable. For tin-plate the year also opened with unfavorable prospects, but prices improved, and remained so to the end of the year.

#### MACHINERY.

Machine manufacturers were, in general, busily employed, but no general change took place in industry, and profits were slight. There was no change in wages. The situation of sewing-machine makers can be designated as satisfactory, but much complaint is raised over American competition, which is favored by a high protective tariff in contradistinction to the moderate German one.

The manufacture in the Odenwald of agricultural implements, such as spades, hoes, &c., was active and larger.

The iron market is now flat, and machine works, foundries, wagon works and braziers' works are, as a rule, poorly employed. Locomotive works, however, are said to be quite well engaged.

According to returns said to have been collected by a Rhenish smelting firm the following have been the iron prices per ton in the German market during the last three years, reduced to dollars by me:

Articles.	1882-'83.	1883-'84.	1884-'85.
Rolled iron .....	\$31 00	\$28 00	\$25 00
Iron shot of all kinds .....	13 00	12 00	9 00
Wrought-iron chips .....	11 00	10 00	9 00
Pig iron (ordinary and quality) .....	12 00	10 94	10 28

#### EXPORTS OF MANUFACTURES.

The exportation, according to a commercial paper, of manufactured goods to countries beyond the seas has not yet reached the dimensions this year which the exporters and manufacturers of the Empire from previous experience were justified in expecting. In the first place, the United States is not by far so receptive as formerly; and especially in dress materials are transactions unsatisfactory. The high duties interfere with the extension of business, and the prevailing modes are unfavorable to German goods. Other American markets are suffering under price depressions. With Central America a slight improvement in trade is observable, but the South American markets are almost all suffering from overstocking. The trade with Mexico is more active, and from that country the German exporters receive material orders, showing the growing taste for German articles. The Asiatic markets entail only

loss on exporters of manufactured goods. The shipment of cloths to China has almost entirely ceased. In Australia the general course of business is not unfavorable, but a decrease in direct trade with Germany has taken place, and orders are made principally through London. Complaint is made of the lack of German commission houses to act as a medium of exchange between manufacturers and foreign buyers, and owing to their absence much business gravitates to France and England.

#### TEXTILE INDUSTRIES.

The cotton industry in Germany seems to be in a better state than in other competing countries. England and Russia seem to suffer from overproduction, and France from a lessening of consumption. In Germany there is an increased consumption observable, and it is said that there must be a decided increase of production before an overproduction can take place. The number of spindles in Germany are computed to amount to about five and a half millions. Raw stuff is cheap. The weavers are better situated than the spinners, and are busily employed. Most weavers are supplied with large contracts in cloths at prices which have, since the beginning of the year, increased in almost the same measure as those of the raw material and yarn have fallen. The number of spindles in Germany might be increased one million before foreign yarns would become unnecessary.

The flax harvest of year before last was poor, and forced the German spinners to use Russian flax, and prices were high. At the beginning of the year there was a very active business done in textiles, on rising prices.

In wool last year there was a decline in prices.

#### IMPORTS AND EXPORTS.

The imports of the Empire during the year 1884 showed an increase in quantity over those of the preceding year and its predecessor. In 1884 the total amount of tons of merchandise imported amounted to 17,787,766 against 16,297,187 in 1883, and 15,299,910 in 1882. The total value of the imports in 1884 amounted to 3,284,900,000 marks (\$781,806,000); in 1883, to 3,290,896,000 marks (\$783,234,000); in 1882, to 3,164,700,000 (\$753,198,000) in round numbers. The exports during 1884 amounted in quantity to 19,151,756 tons; in 1883, to 19,239,596; in 1882, to 17,208,956, valued at 3,269,400,000 marks (\$778,117,000); in 1884, at 3,335,000,000 (\$793,730,000) in 1883; and at 3,244,100,000 (\$772,095,000) in 1882. The falling off in value is simply due to a decline of prices, which has been going on for several years past, as will be seen from a table of prices hereto annexed, computed from the year 1879 down.

The conclusion is drawn from tables that during the year 1884 no increased activity of note took place in any branch of industry.

#### TRADE WITH THE UNITED STATES.

The value of the merchandise exported to the United States from this consular district during the fiscal year ending June 30, 1885, amounted to \$1,247,755.29, against \$1,138,123.31 for the year ending June 30, 1884, as follows:

Articles.	1885.	1884.
Wine and brandy*	\$566, 224 09	\$427, 405 90
Agateware and jewelry	172, 326 46	212, 030 26
Leather	119, 990 75	185, 497 80
Chemicals	119, 690 81	94, 343 76
Hops	84, 506 82	66, 937 37
Cement	76, 666 56	78, 208 51
Aniline colors	51, 215 91	46, 269 98
Preserved fruits	30, 067 89	8, 676 58
Glue	4, 302 51	1, 103 07
Miscellaneous	22, 763 49	17, 650 08
Total	1, 247, 765 29	1, 188, 123 81

\* Nearly all wine.

For the calendar years ending December 31, 1884, and December 31, 1883, the comparison stands as follows :

Articles.	1884.	1883.
Wine and brandy	\$548, 027 47	\$523, 978 23
Agateware and jewelry	171, 675 97	239, 891 96
Leather	141, 747 47	205, 084 66
Hops	107, 837 69	58, 282 69
Chemicals	104, 241 44	99, 931 87
Cement	74, 657 77	51, 587 06
Aniline colors	60, 193 31	42, 603 45
Preserved fruits	28, 919 26	6, 087 23
Glue*	36 10	18, 396 86
Mineral water*	377 80	13, 920 60
Clay pipes*		11, 291 48
Miscellaneous	19, 628 58	32, 368 56
Total	1, 257, 842 86	1, 302, 423 66

\* These articles are supposed not to have fallen off, but to be now declared at the Frankfort consulate.

#### IMPORTS OF FRESH MEATS.

While upon this subject of imports and exports, I desire to insert the following, taken from Kuhlows German Trade Review :

*Fresh-meat trade with Argentine.*—The proposal to establish a company to carry on the importation of fresh meat from Argentine is being taken up in various quarters. Hamburg is to be the chief European depot, and 3,000,000 marks (about \$700,000) are proposed as the capital. It is contended that there is a great opening in Germany for a concern which will provide cheap food, and especially flesh, for the people. The La Plata States, and Argentine particularly, are especially eligible for the supply of stock on a large scale. A beginning is to be made with mutton. In the Argentine Republic alone the flocks of sheep number 80,000,000 head. The meat will be brought in cold apartments, the machinery for the Argentine refrigerating establishment being obtained in Germany. German refrigerating machines have proved their efficiency. Recently Herr A. Neubecker, engineer, of Offenbach, made experiments, attaining 15° of cold, and after six weeks the object still showed 8°, while for the transport by ship 1° is sufficient.\*

Why cannot our people supply some of this "cheap food, especially flesh," for which there is said to be a great opening in Germany?

#### COMMERCIAL MUSEUMS.

One of the propositions which meets with favor in Germany is the erection of what are referred to as Handels-Museums (commercial museums), where samples of products and goods required in all parts of

\*On this subject see also Consul Du Bois's report in this volume.



the world, collected and sent home by the German consular corps, shall be placed on exhibition for the inspection and study of German exporters and manufacturers. Berlin and Frankfort-on-the-Main are suggested as the most suitable commercial centers.\* The Germans must have an export trade, and with this object in view their consular corps is being improved and increased, steamship lines are being subsidized, and colonies are sought after.

#### COLONIES.

The acquisition of colonies still occupies a prominent place in the minds of the public and in the columns of the newspapers; but the tracts of land thus far obtained do not seem to bid fair to become valuable pieces of State property. The acquisition of each strip of land has been hailed with delight throughout Germany among certain classes, as indicative of the growing importance of the Empire and of future commercial supremacy; and well should the people feel a pride in every step taken which has a tendency to give Germany a more commanding position among the nations of the earth and further its commercial interests in all directions. But the one thing desirable has not yet been attained, and that is, the acquisition of domains suitable for settlements, to which the great stream of emigration which now directs its way to the United States might in whole or in part be diverted, and thus be in close connection with the mother country, instead of being completely absorbed in a foreign power, as is the case with the emigration to our shores. "Colonies! colonies!" is the cry; "but colonies of use and value." The colonial policy, as it is termed, has enemies, however, who claim that it is only raised for the purpose of getting money to build up a navy, and maintain that it is useless for Germany to expect to extend its commercial relations materially by imposing duties upon importations from foreign countries, and obtaining possession of and cultivating commercial intercourse with out-of-the-way strips of land, which, for years anyway, will not show the slightest prospect for taking the surplus production of dress-goods, half-silk goods, manufactures of leather, and small iron ware, &c., which the Empire turns off.

#### STEAMSHIP LINES.

Closely related to the question of colonial dependencies is that of subsidized lines of steamers to various parts of the world, to East Asia, Australia, and the Mediterranean, of which the Government at Berlin is now a zealous advocate, and it has centered upon an experimental policy in this direction, which, it is hoped and expected, will in time bear rich fruit. In this enterprise, also, it seems to meet with the hearty approval of the people. Germany is fully alive to the spirit of competition pervading the nations of the world and to the rivalry prevailing among them for the leading place in the enjoyment of the world's commerce, and is equally sensible of the need of markets for its surplus products, which will ward off disquiet at home among its working classes and keep busy its capitalists and manufacturers, and, moreover, enable it to more easily bear the strain which a large military establishment imposes upon it, and is disposed to exert itself to get these markets. Under the old political system of divided interests under which the states now composing the German Empire lived and struggled, the

\* Consul-General Jussen (Vienna) described the policy of "sample-export depots" in a report printed in No. 57 of the Consular Reports (October, 1885, p. 89).



grasping after imperial dominion and extensive commercial relations with all quarters of the globe was not possible; but now the people are beginning to feel the strength of their might and the compactness of their union, and to be animated by a common national fervor, which seeks to make its influence felt everywhere. The competition going on in the world now is so great and the gains of trade so slight that it depends largely upon celerity, regularity, and cheapness of the means of intercourse between the nations whether trade shall thrive with them; and the German argues that a land which does not possess its own lines of communication with foreign ports, and does not lie on the highways of the sea, must ever disadvantageously contend with its more enterprising and better-equipped rivals. He therefore subsidizes, and is waiting the result on his first investment—4,000,000 marks (\$950,000) per annum.

#### EMIGRATION.

Emigration has fallen off considerably, and would have done so to a greater extent had not passage rates to the United States been remarkably low among competing companies. The chief cause of the decrease is bad times in the United States. Emigration seems to be strongest from the agricultural districts where landed proprietors hold large estates, and slightest from the industrial regions.

The emigration from Hesse-Darmstadt to transatlantic countries in 1884 amounted to 3,175, against 3,589 in 1883 and 3,430 in 1882, and was 311 for every 100,000 inhabitants, against the rate of 362 for the Empire at large.

#### LABOR LEGISLATION.

The workingman receives a good share of public attention. The organization of the workingmen of the Empire into associations to provide relief in all cases of continued sickness under the law of June 15, 1883, has been effected without in general meeting with any great difficulties, it is said. With respect to the beneficent operations of the measure, it is considered yet too early to pass an intelligent opinion. Another law, providing for the organization of factory operatives, miners, &c., into associations to provide relief in the case of accident, called the accident insurance law, passed by the Reichstag in 1884, will probably go into effect next year. While the law does not answer all the requirements of the manufacturing classes, and its provisions are not well understood, it nevertheless seems to be favorably regarded by the parties interested in it. At present the "Berufsgenossenschaften" (industrial unions), for the execution of the law, called into being by it, are being formed and organized, and their functions are being busily ascertained and set forth, which necessarily gives rise to a great deal of discussion.

Besides the measures above alluded to for the amelioration of the workingman's lot, the Government has in view the initiation of measures for the regulation of work on Sundays and holidays. One of the great questions agitating the public at present in Germany is that of Sunday rest in connection with the subject of normal hours of labor, and the Government and Reichstag are being energetically and persistently called upon by the working classes to regulate the Sunday question and provide what shall be a normal day of labor. In Germany the workingman not only works six days in the week, but in many instances seven, and a decided movement is on foot to relieve him of the burden of Sunday labor; but the opposition to the regulation

and prohibition of Sunday labor is great, and nothing of importance will probably be done. By direction of the Imperial Government the provincial governments are collecting evidence regarding Sunday and holiday labor, which it is expected will be laid before the Reichstag at its next session and engage its serious attention.

The subject of the establishment of postal savings banks receives a great deal of attention, and will probably become the object of legislative action at no very distant day.

#### NAVIGATION OF THE PORT.

During the year 1884 vessels arrived at Mayence 7,830 times, carrying 168,879.3 tons of merchandise. Of these ships, 3,793 were propelled by steam, consisting of 2,686 passenger river steamers, 586 tugs, and 521 freight boats; and the remaining ones sailing vessels, which transported 144,893.6 tons of the 168,879.3 mentioned.

From Mayence vessels departed 7,830 times, taking 16,285.8 tons of goods. The vessels were all river craft, and belonged to Hesse-Darmstadt, Baden, Bavaria, Netherlands, Prussia, Wurtemberg, or Belgium. The particular character of the commodities which they brought to and took away from Mayence I have not yet seen published. In 1883, vessels arrived 7,631 times, with 215,545 tons of merchandise, and left 7,628 times, with 29,421 tons of merchandise.

#### PRICES.

The average prices at Mayence, during the year 1884, of grain, hay, potatoes, peas, and beans were as follows per 100 kilograms: \*

Wheat, \$4.60; rye, \$3.94; barley, \$3.93; potatoes, \$1.25; peas, \$6.03; beans, \$6.05; oats, \$3.71; hay, \$1.56; straw, \$1.26.

In 1883 most of these articles commanded better prices, as follows:

Wheat, \$5.07; rye, \$3.96; barley, \$3.81; potatoes, \$1.94; peas, \$6.50; beans, \$6.14; oats, \$3.56; hay, \$1.44; straw, \$1.23.

The average prices in 1884 of meat, flour, &c., at this city were as follows per pound (one German pound being half a kilogram or 1.1 pounds English), namely:

Beef, 17 cents; veal, 15; mutton, 11½; pork, 16; wheat flour, 4¾; rye flour, 4; rye bread, 3½; butter, 25.

Their prices in 1883 were: Beef, 17 cents; veal, 14½; mutton, 12½; wheat flour, 5; rye flour 4½; rye bread, 3½; butter, 25; pork, 16½.

#### HEALTH STATISTICS.

The population of Hesse-Darmstadt in 1880 was 936,944 souls. During the past year the number of deaths in the Duchy, according to the official report, was 20,548, exclusive of still-births, or 21.12 per 1,000, against an average of 22.34 during the years 1879-1883; of the deceased, 5,452 were children less than one year old, and 3,431 children from two to fifteen years of age. From infectious diseases of all kinds there were altogether 1,737 deaths; 335 from measles, 628 from diphtheria and croup, 253 from whooping-cough, 174 from typhus and nervous fevers, 152 from scarlet fever, 97 from child-bed fever, 81 from erysipelas, 4 from diarrhoea, and 3 from inflammation of the spleen. From consumption 2,557 persons died, and to acute inflammation of the breathing organs

\* Equal to 220 pounds avoirdupois.

2,064 yielded. Apoplexy claimed 545 victims. Of suicide there were 225, and of deaths through accident, 321. Catarrh of the stomach and diarrhœa, accompanied with vomiting, occasioned 1,138 deaths.

## METEOROLOGICAL.

The lowest point reached at Mayence by the thermometer during the year was on December 1, when it stood at 5.8° Reaumur; the highest on August 3, when it was at 27.2° R. The average temperature during the months of December, 1883, January and February, 1884, was 2.84° R.; during March, April, and May, 8.92°; during June, July, and August, 14.97°; during September, October, and November, 8.13°. The number of icy days (the greatest temperature being 0° R.) were 4; the number of frosty days (with minimum temperature under 0°), were 41; the number of summer days (with a maximum temperature of 20° or more) were 54; the number of rainy days were 142; the number of snowy days, 14; the number of snowy and rainy, 9; number of foggy, 45; number of rimy days, 52; and the number of days on which thunder storms occurred were 14.

JAS. HENRY SMITH,  
Commercial Agent.

UNITED STATES COMMERCIAL AGENCY,  
Mayence, September 1, 1885.

*Statement from the official reports of the German Government, showing the average prices in the German Empire of the leading articles of merchandise during the years 1879-1884.\**

Countries.	Description of articles.	1879.	1880.	1881.	1882.	1883.	1884.
	<i>Wheat (per 1,000 kilograms, 2,204 lbs. English).</i>						
Berlin .....	Good, sound, yellow, 71.3 kilograms per hectoliter (2.84 bushels).	\$47 10	\$51 83	\$52 14	\$48 59	\$44 29	\$38 00
Dantzic.....	Dutch, with 75 kilograms per hectoliter ...	46 09	49 93	50 12	46 71	43 17	36 38
Cologne.....	Rhenish, free of defects, 76 kilograms per hectoliter.	51 38	55 69	56 23	54 00	48 64	42 86
Lindau .....	Glutinous, 78 to 79 kilograms per hectoliter.	56 23	62 16	60 85	57 54	54 19	49 83
	<i>Rye (per 1,000 kilograms).</i>						
Berlin .....	Good, sound, averaging 65.9 kilograms per hectoliter.	41 60	44 72	46 45	36 24	34 43	34 00
Dantzic.....	Dutch, weighing about 71.5 kilograms per hectoliter.	29 91	43 05	44 79	34 65	32 39	33 01
Cologne .....	Rhenish, free of defects, with at least 70 kilograms per hectoliter.	37 24	48 59	51 62	42 38	37 31	36 46
Lindau .....	Hungarian, 73 to 74 kilograms per hectoliter.	39 27	49 33	52 31	45 74	42 95	43 50
	<i>Barley (per 1,000 kilograms).</i>						
Dantzic.....	Large brewing, Prussian, Polish, Russian, Gallician.	33 12	37 65	46 27	31 44	31 51	32 96
Lindau .....	Hungarian, 65 to 66 kilograms per hectoliter.	48 14	50 40	50 66	46 55	44 57	45 31
Magdeburg .....	Chevalier barley, 65.9 kilograms per hectoliter.	44 91	46 24	44 62	43 12	39 53	41 95
Munich.....	Bavarian, good, medium. ....	45 48	45 31	45 52	44 43	40 50	42 29
	<i>Oats (per 1,000 kilograms).</i>						
Berlin .....	Good, sound, 38.6 kilograms per hectoliter.	30 17	45 10	35 84	31 51	30 47	31 24
Dantzic.....	Native .....	28 98	35 81	36 41	29 89	30 22	31 29
Cologne .....	Rhenish, free of defects, at least 44 kilograms per hectoliter.	33 91	36 86	39 48	37 00	34 72	34 67
Lindau .....	Bavarian, 44 to 45 kilograms per hectoliter.	35 22	36 77	37 79	39 46	33 24	35 72

\* In Bremen and Hamburg prices there is no custom duty.

*Statement from the official reports of the German Government, showing the average prices in the German Empire of the leading articles of merchandise, &c.—Continued.*

Countries.	Description of articles.	1879.	1880.	1881.	1882.	1883.	1884.
	<i>Potatoes (per 1,000 kilograms, without sack).</i>						
Berlin .....	Good, early, red, unsorted, distillery .....				\$6 42	\$8 28	\$5 97
	Good, sound, early, red, sorted, eating potatoes.				8 63	13 25	9 35
Breslau .....	Good, sound Silesian eating potatoes .....				9 21	11 40	9 28
	<i>Potato-spirit (per 10,000 liters (10,567 quarts) per cent. Trall, without cask.)</i>						
Berlin .....	Good, raw, at least 80 per cent. ....	\$12 85	\$14 44	\$13 09	11 61	12 70	11 32
Mannheim .....	Middle and North German .....	13 39	16 85	15 54	18 16	13 97	12 08
Posen .....	Raw, at least 80 per cent. ....	12 28	13 87	12 60	11 23	12 28	11 01
	<i>Sugar (per 100 kilograms, 220 pounds avoirdupois).</i>						
	(a) RAW SUGAR.						
Cologne .....	Clear corn, 96 per cent. polarization, exclusive sack, with 3 months' time.	15 44	15 92	16 18	15 82	14 87	11 00
Magdeburg .....	First product, corn, 96 per cent. polarization, exclusive sack, with 3 months' time.	14 89	15 25	15 63	15 23	13 25	11 38
	(b) REFINED SUGAR.						
Cologne .....	Exclusive barrel, 2 months' time .....	18 82	19 18	19 87	19 53	18 25	14 80
Magdeburg .....	Ff loaf-sugar .....	18 37	18 73	19 40	19 15	17 75	14 68
	<i>Coffee (per 100 kilograms).</i>						
Bremen .....	Rio, good ordinary, net, with sack, 4 months' time.	29 75	29 30	24 84	19 60	19 61	22 27
Frankfort-on-the-Main.	Java, good ordinary, packing free, three months' time.	.....	44 03	41 36	35 05	37 43	36 07
Hamburg .....	Santos, genuine ordinary, 1 per cent. off. .	29 77	30 94	25 78	19 84	21 58	22 30
Mannheim .....	Plantation, Ceylon, good medium, packing free.	58 50	58 50	55 76	52 43	56 28	49 71
	<i>Rice (per 100 kilograms).</i>						
Bremen .....	Rangoon, table rice, hulled, four months' time.	6 25	5 83	6 14	5 16	5 18	5 18
Hamburg .....	Rangoon, lowest notation, hulled rice, 1 per cent. off.	5 85	5 92	5 45	4 42	4 76	4 76
	<i>Herrings (for about 150 kilograms).</i>						
Stettin .....	Norwegian merchant's herrings, average quality, net, with barrel.	8 78	9 75	7 30	8 16	9 52	7 96
	Scottish crown ihlen, average quality, net, with barrel.	8 25	8 13	7 23	7 92	8 30	6 83
	<i>Raw tobacco (per 100 kilograms).</i>						
Bremen .....	Ordinary Kentucky, net, including packing, six months' time.	10 35	12 35	14 18	15 77	15 75	19 61
	Brazil, secunda, net, including packing, six months' time.	24 25	21 82	21 01	19 25	21 13	19 68
Hamburg .....	Domingo wrapping and filling, per seron, 12 pounds tare, 1 per cent. bast, six months.	26 32	36 39	26 96	26 37	22 60	23 80
	Brazilian, 2 per cent. tare . . . . .	27 15	27 37	27 47	26 77	26 18	25 68
Mannheim .....	Palatinate cigar tobacco, three months' time.	26 22	30 88	29 58	28 25	30 39	31 70
	Brown Schneidgut (cut well) palatinate tobacco, three months' time.	29 96	28 63	27 41	26 18	27 77	27 46
	<i>Cotton (per 100 kilograms).</i>						
Bremen .....	Good, fair Oomra, four months' time . . .	.....	26 90	21 49	22 20	19 61	22 34
Hamburg .....	New Orleans, middling, Liverpool classified, clean, average tare	.....	31 65	28 46	30 48	25 69	27 25
	<i>Wool (per 100 kilograms).</i>						
Berlin .....	North German, medium .....	79 68	84 29	79 15	78 54	78 54	75 04
Bremen .....	Washed, Buenos Ayres, first quality, four months' time.	99 72	114 31	104 93	101 81	99 96	96 53

*Statement from the official reports of the German Government, showing the average prices in the German Empire of the leading articles of merchandise, &c.—Continued.*

Countries.	Description of articles.	1879.	1880.	1881.	1882.	1883.	1884.
<i>Raw iron (per 1,000 kilograms).</i>							
Berlin, from stock	Best Scottish foundry, No. 1 (Langloan) ..	\$17 70	\$20 77	\$19 44	\$19 96	\$19 63	\$17 87
	English (Middlesbro') No. 3.....	18 23	16 92	14 44	16 01	14 97	13 92
Breslau, at the works.	Puddle .....	12 30	15 89	13 10	15 73	13 75	12 97
	Foundry .....	13 51	17 35	14 72	16 54	15 13	14 35
Dortmund, at the works.	Bessemer raw iron, from the Ruhr district.	14 27	18 73	16 49	16 68	14 42	12 63
	Westphalian puddle, No. 1.....	12 66	16 35	13 66	15 47	13 70	11 99
Dusseldorf, at the works.	Best German puddle .....	13 35	19 87	13 05	15 37	13 70	11 90
	Best German foundry .....	14 89	20 72	17 34	17 85	17 35	15 63
<i>Lead (per 100 kilograms).</i>							
Berlin .....	Saxonia and Tarnowitz .....	7 30	7 94	7 35	7 09	6 40	5 49
Halberstadt .....	Refined Hartz, soft, three months' time, taken at smelting-houses.				6 40	5 68	4 92
Cologne .....	Soft Rhenish, double refined, three months' time.	7 02	7 63	6 90	6 73	5 95	5 14
<i>Copper (per 100 kilograms).</i>							
Berlin .....	Mansfield .....	31 74	35 48	33 46	34 93	33 62	29 89
Hamburg .....	English copper in blocks, T. C. T. mark....	31 91	33 48	22 36	35 74	33 51	30 01
<i>Zinc (per 100 kilograms).</i>							
Breslau .....	Upper Silesian, C. G. H., at the smelting-houses.	7 59	8 04	7 33	7 56	6 87	6 52
Cologne .....	Rhenish raw copper, W. H. and S. S., 3 months' time.	8 16	8 02	7 78	8 16	7 28	6 90
<i>Tin (per 100 kilograms).</i>							
Hamburg .....	Banca tin, in blocks, 2 per cent off. ....	37 36	44 95	47 83	54 02	49 69	44 00
<i>Petroleum (per 100 kilograms, including barrel).</i>							
Bremen .....	American, white refined, 4 months' time ...	3 47	4 09	3 76	3 40	3 68	3 61
Stettin .....	American, white refined, customs duties unpaid.	4 35	4 47	4 09	3 64	3 97	3 92
<i>Coal (per 1,000 kilograms).</i>							
	Highest average quotation for German coal	2 40	2 45	2 42	2 40	2 35	2 25
	Lowest average quotation for German coal	1 11	1 42	1 30	1 33	1 42	1 30
	Double-sieved English nut-coal at Dantzic from the vessel.	2 87	3 18	3 35	3 28	3 07	3 07
	Scottish machine, lump-coal.....	2 85	3 28	3 49	3 16	3 09	3 14

## BERLIN.

## REPORT BY CONSUL-GENERAL RAINE ON PRICES OF PORK.

The order of the Imperial Government, permitting after September 1 the importation of hogs from Russia and Austria-Hungary (a sort of politico-commercial arrangement), has been suddenly repealed, the repeal to take place after October 15. Numerous hogs imported were suffering from diseases of the mouth and feet and had to be killed to prevent contagion.

It is known that the hog disease is spreading upon the peninsula of the Balkan and in Italy, and the Prussian minister of agriculture has ordered that in future no hogs shall be allowed to cross the boundary from any country unless satisfactory certificate is produced.

The average prices of pork at Berlin in September, 1884, were: good Mecklenburg, 62½ to 67½ pfennigs a pound; middle Pomeranian, 56½ to

65 pfennigs; and Russian, 50 to 62½ pfennigs. According to an official publication of the Berlin police department, the highest price in September, 1885, was 70 pfennigs a pound (= ½ kilogram), and the lowest 50 pfennigs.

F. RAINE,  
*Consul-General.*

UNITED STATES CONSULATE-GENERAL,  
*Berlin, September 29, 1885.*

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BERLIN.

*REPORT BY CONSUL-GENERAL RAINE ON THE DUTY ON PETROLEUM BARRELS.*

In the month of November, 1884, the Federal Council of the Empire was requested by the Imperial Government to modify the duties upon petroleum with a view of subjecting barrels in which petroleum is imported from the United States to a specific duty of 10 marks per 100 kilograms, the same that is collected on colored coopers' ware. Heretofore such barrels were only subject to a duty of 6 marks per 100 kilograms.

Whether such a change can be effected through the action of the Federal Council, or whether a special legislative act is required to carry out the wishes of the Imperial Government, is being questioned by the newspapers. The tariff of May 22, 1885, already provides for the mode of taxing barrels containing petroleum, and makes no distinction between the vessels containing petroleum and their contents, providing that the oil shall be subject to a duty of 6 marks per kilogram gross weight, no tare being allowed.

It is not likely that the project of increasing the duty is intended for the protection of the coopers, as it is a well-known fact that nearly all empty barrels are re-exported to the United States. It is more than probable that the measure is intended to favor shippers of Russian petroleum, who import the fluid exclusively in tank cars into Germany.

The measure meets with decided opposition in Bremen, Hamburg, &c., where many shippers derive profit from the reshipment of empty barrels to the United States. It is feared that should the wish of the Government become effective, the export of American petroleum to Germany will be seriously interfered with.

Until recently nothing was heard of this matter; and no little surprise was occasioned when, on the morning of September 19, the Berlin papers informed the public that the Federal Council had adopted a resolution that barrels containing petroleum should be regarded as colored coopers' ware, and as such be liable to a duty of 10 marks per 100 kilograms. I am reliably informed that after the adoption of the resolution several amendatory propositions were offered. One of them is to the effect that a drawback should be allowed on all re-exported barrels, another that the time for a final vote should be extended beyond the first of November. The matter will undoubtedly go before the Reichstag, though the chancellor appears to press the matter in favor of Russian interests and will oppose a postponement beyond November 1.

Though the papers state that of 25 members of the Federal Council only 5 voted against the measure, it is said by well-informed parties that it was carried only by a small majority.

The projected increase of duty would virtually amount to 4 marks



per 100 kilograms. American barrels filled with oil weigh about 145 to 150 kilograms; unfilled, 31 to 35. Two centners, or 100 kilograms, are said to be equal to 128 liters. To-day, 100 kilograms (gross weight), if bought in quantities of 100 centners or more, are quoted on the exchange at 23 marks 50 pfennigs. This is about 18.4 pfennigs per liter, while large dealers retail the article at 25 pfennigs per liter. Under the proposed increase of duty a liter would sell at wholesale for 20.9 pfennigs and at retail for 27.9 pfennigs.

While many dealers are inclined to the belief that the increased duty will greatly damage imports from the United States, a very prominent merchant has assured me that such would not be the case. Russian petroleum finds little favor among consumers. It has a higher specific gravity than the oil from the United States (Russian = 0.840, American = 0.800 to 0.810). It blackens considerably and has a disagreeable odor. Besides, the usual burners are not suited to the Russian oil, and even with special burners it does not lose its bad properties. The same gentleman assures me that he was persuaded last year to bring Russian petroleum into the market. He got rid of it as soon as possible, and now restricts himself to the sale of American oil. Similar remarks were made to me by other dealers.

Thus far the projected measure has not affected the market. The average price has been since the beginning of the year 23 marks 5 pfennigs (\$5.59) for standard white petroleum.

The petroleum measure is no doubt intended to induce Russia to grant a similar favor to German products.

F. RAINE,  
*Consul-General.*

UNITED STATES CONSULATE-GENERAL,  
*Berlin, September 20, 1885.*

### LEIPSIC.

#### REPORT BY CONSUL DUBOIS ON THE CONSUMPTION OF WHEAT, RYE, AND MEATS IN GERMANY.

America being the most important grain and meat producing country in the world, it may be of interest to American producers to read the following statement concerning these productions, giving the sources of supply of grain especially, and the freight charges on the same from the various places of shipment to Leipsic:

Places of shipment.	Kilograms.	Marks.	Dollars.
<b>North Russia:</b>			
Freight charges from Petersburg, Libau, Reval, Riga, to Stettin.	1,000	8	1 92
From Stettin to Leipsic (average).....	1,000	12	2 88
<b>South Russia:</b>			
From Odessa and Nikolalev, per steamer, to Hamburg.....	1,000	16	3 84
From Hamburg, via Wallwitzhafen, to Leipsic.....	1,000	10	2 40
Insurance premium from Hamburg to Leipsic, one-fourth to three-eighths per cent.			
<b>Turkey and Bulgaria:</b>			
From Varna, via Hamburg, the freight is the same as from Southern Russia.....			
<b>Austria-Hungary:</b>			
From Buda-Pesth, per rail, to Tetschen, thence by water to Wallwitzhafen.....	1,000	43	10 32
To Leipsic.....	1,000	47	11 08
<b>Germany:</b>			
Freight charges from Silesia, per rail, to Leipsic.....	1,000	7	1 68

Table showing the amount of wheat and rye imported into Leipsic since 1880.

Years.	Wheat.	Rye.	Cost per 1,000 kilos.	
			Wheat.	Rye.
	Kilos.	Kilos.	Marks.	Marks.
1880 .....	15, 544, 800	17, 426, 100	228	205
1881 .....	17, 265, 800	17, 500, 500	232	210
1882 .....	20, 117, 100	29, 461, 300	213	159
1883 .....	15, 189, 500	21, 732, 900	174	151
1884 .....	10, 118, 500	12, 752, 900	176	153

Table showing the amount of wheat and rye shipped from Leipsic since 1880.

Years.	Wheat.	Rye.	Cost per 1,000 kilos.	
			Wheat.	Rye.
	Kilos.	Kilos.	Marks.	Marks.
1880 .....	6, 462, 500	7, 656, 000	.....	.....
1881 .....	9, 451, 700	6, 046, 300	.....	.....
1882 .....	6, 167, 000	5, 736, 900	.....	.....
1883 .....	6, 586, 200	7, 086, 300	174	151
1884 .....	3, 805, 100	2, 962, 100	176	153

The above tables show that there has been a remarkable decrease both in the exportation and importation of wheat and rye since 1883, and a small increase in the average price of both these cereals.

MEAT CONSUMPTION

BRUCE YN

is a thing unknown in Europe—that, is if one speaks of the working masses—and yet the statistics of Saxony prove that much more meat is eaten now than in former times, which is an unfailing sign of increasing prosperity and well-being of the people. The average meat consumption per capita during the ten years from 1836–1845 was 35 pounds; from 1846–1855, 37 pounds; from 1856–1865, 49 pounds; and from 1866–1875, 56 pounds. In the year 1875 the average per capita was 65 pounds. Comparing the year 1836 and the year 1875, and we find the increase to be from 34 to 65. In 1884 the consumption per capita was 66 pounds, showing a continual increase during the last fifty years.

The following table shows the kind and amount per capita of meat consumed during the past fifty years :

Years.	Beef and mutton.	Pork of all kinds.	Total.
	Pounds.	Pounds.	Pounds.
1836 .....	16	18	34
1866 .....	24	32	56
1875 .....	28	37	65
1880 .....	24	39	63
1884 .....	26	40	66

From the above table it will be seen that while, since 1866, there has been only a very small increase in the consumption of beef and mutton, there has been a large increase in the consumption of pork. This is

consumed principally by the working classes, and thus the table proves that in 1875 the masses, having 28 pounds of beef and mutton per capita and only 37 pounds of pork, had at that time better meat-food than to-day, when they are consuming meat at the rate of 26 pounds of beef and mutton annually *per capita* and 40 pounds of pork.

The gradual increase in the consumption of meats, combined with the rapid increase in the population of the country, has made Germany a good market for meats of all kinds.

#### IMPORTATIONS OF FRESH MEATS.

Recently a society for the importation of fresh meat from the Argentine Republic has been established in Hamburg; at least, initiatory steps have been taken for its formation. At first an attempt will be made to import mutton, and, later on, beef. It is announced that the best quality of sheep in Buenos Ayres cost 7 marks (\$1.67) per head.

The chief depot for this fresh meat will be Hamburg, and, if the society be successful, a second depot will be established at Antwerp. It is stated that over 120,000 muttons will be brought to Hamburg from the Argentine Republic the first year, and an annual profit of 876,720 marks is expected. In 1880 Hamburg imported 7,500,000 marks' worth of various articles from the Argentine Republic, and in 1884 the amount increased to 24,000,000—that is, over threefold in four years. During the same period the export to that country has nearly quadrupled.

There is a duty of 20 pfennigs per kilo on mutton imported into Germany. The retail market price for roasts of beef is 17 to 25 cents per pound; fillet, 30 to 40 cents; pork, 16 to 20; liver, 25; ham, 25; mutton, 16 to 22; veal, 22 to 25, and lard, 18 cents.

JAMES T. DU BOIS,  
*Consul.*

UNITED STATES CONSULATE,  
*Leipsic, September 21, 1885.*

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#### CHEMNITZ.

##### REPORT BY CONSUL TANNER ON THE PRODUCTION OF BEET SUGAR.

The depression that has weighed so heavily upon all trade has been particularly severe upon the sugar industry.

Prices for upwards of fourteen months have had a constant downward tendency, which was in Germany attributed to overproduction. To place prices on a living standard German manufacturers banded together with a view of reducing production. Germany's position as a sugar-exporting country had, heretofore, been of importance sufficient to justify the assumption that this action would influence the English market.

A reduction of production has taken place in Germany of the raw material, far below what was counted upon; and this having been the case in other European countries besides Germany, American exporters of sugar may find their opportunity.

Statistics at hand show, with the exception of 55 German manufactories from which no returns have been made, there are 815,312 Prussian acres in cultivation, against 1,200,000 acres in 1884, a decrease of 32 per cent. The deficiency is still further decreased by bad and unfavorable seasons to at least 47 per cent. on the yield of 1884.

Overproduction, low prices, and the drought have, as in Germany, reduced production in the various European states 200,000 to 250,000 tons, so that the beet-root crop will be from 700,000 to 800,000 tons less in 1885 than in the preceding year. This deficit is to be shared by France, Germany, Austria, Hungary, Belgium, and Holland, and, as estimated, is to be relied upon.

The action of the German producers in reducing the output, an example which was imitated throughout the continent, and the further unexpected reduction by the elements, place the European sugar industry in rather an embarrassing position, because it is extremely doubtful whether it will be able to take advantage of a state which is, in part, of its own creation. Hardly more than enough has been produced (according to all indications) to supply the home market. This should leave a splendid opportunity to our exporters.

The reduction of imports from the Continent has had the effect the Germans hoped for, in so far that prices have risen in the English market 3*l.* a ton, when "the f. o. b. price" for prompt shipment was only 12*s.* 3 *d.* per cwt. And it is by no means unlikely, in view of the demand for cane sugar, that another advance of prices may take place. Indeed it is very probable, because of the short crop and because it is doubtful whether continental shipments will be in any case of sufficient importance to influence the market towards lower prices.

The present state of affairs offers our exporters an opportunity to get a foothold in the English market that may be greatly to their advantage.

GEORGE C. TANNER,  
*Consul.*

UNITED STATES CONSULATE,  
*Chemnitz, Saxony, September, 17, 1885.*

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NOTE.

[From the *Manchester Guardian*.]

The prospects of the sugar market have an interest for large numbers of commercial men other than those who are engaged directly in the produce trade. Leaving out of view the vexed question of the influence of the decline in the value of silver or the appreciation in the value of gold on the depression of trade, the experience of the past few years has demonstrated in a peculiarly striking way how intimately associated are the fortunes of manufacturing industry with extensive changes in the trade in agricultural, including colonial, products, and especially food-stuffs. The severe crisis which broke out in the continental sugar trade last year, affecting as it did not merely the producers of beet-root sugar, but extending its influence to a disastrous extent to the cane-planters of the Dutch East Indian colonies, intensifying the adversities of the West Indian growers and reacting even upon the distant Pacific and Australian producers in a way which seemed not unlikely to bring about a general financial collapse, was another illustration of the desirableness of British exporters of manufactures giving attention to the condition of trades which appear to lie outside their own special business.

The crisis in the sugar trade last autumn was a direct consequence of the artificial stimulus applied to the production of beet-root sugar by the continental bounties. The Bohemian growers were the first to feel the effect, and it will be remembered that the crisis was heralded by banking and other failures involving very serious and even tragic consequences in Austria. The sugar industry is, in fact, a very important one for Austria, and it is not surprising, therefore, that the Vienna journals should pay special attention to the conditions for this particular branch of commerce. The *Neue Freie Presse* has just published a survey of the position, containing information which cannot fail to be acceptable to our readers. A speedy consequence of the crisis last autumn was a general movement in favor of reducing the production, or, in other words, undoing the very work which the bounties were intended to promote. There has been much doubt as to the extent to which this reduction has been carried. Our Vienna contemporary begins with the significant assurance that the sugar-manufact-

uring season in Austria this year is likely to be much shorter than usual. For various reasons there is no inclination to hasten the opening of the work. The quantity of beet is much smaller than last year, and the beet can only gain in quality by delay at this season. Delay, moreover, "will allow the stocks left from last year to decline, and will bring the producers nearer to the higher prices of the future." On the average the season will begin a fortnight later than last year, and will terminate much earlier. It is estimated that the work will not take more than 70 days, against 120 days last season, and therefore that the yield will be definitely known before Christmas. This estimated shortening of the season is equivalent to 40 per cent. against last year. Moreover, about 15 sugar-mills will not be opened at all, and this represents a further reduction of 6½ per cent. These facts, says the Vienna paper, indicate the extent of the curtailment of production in Austria. In May and June the contraction was said to be equivalent to 25 per cent., and when it was reported from Bohemia that it would prove to be from 40 to 50 per cent. much skepticism was expressed. To-day "nobody doubts that the diminution in Austria-Hungary is equivalent to at least 40 per cent." In Germany, on the other hand, the contraction spoken of in the earlier part of the year appears to have been an exaggeration. In August it was said to be from 26 to 34 per cent.; at present it is estimated to be 15 per cent. The estimates for France show a reduction of about 20 per cent., and it is probable that the actual falling off will prove to be rather more than 20 per cent. The decrease in Belgium is estimated at 30 per cent. No reliable estimates have been furnished from Holland. The quality of the beet, on the other hand, is expected to prove exceptionally good all over the Continent. The season of 1884-'85 proved a brilliant one in this respect; the new season's beet will certainly not prove inferior to last year's, and in the chief producing countries, Germany and Austria-Hungary, it is likely to prove even better than last year's. Last year the beet in the two countries named yielded on the average from 11½ to 11¾ per cent. of sugar. Arguing from these data, the Vienna paper gives the following figures as representing the probable outturn this season compared with the ascertained yield last season:

Countries.	1885-'86.	1884-'85.
	<i>Tons.</i>	<i>Tons.</i>
Austria-Hungary .....	360,000	605,000
Germany .....	1,000,000	1,185,000
France .....	225,000	275,000
Belgium .....	60,000	85,000
Totals .....	1,645,000	2,150,000

The production of Holland, Denmark, and Sweden is comparatively small; last season the total for these three countries was about 40,000 tons (25,000 tons of this quantity being produced in the Netherlands). Russia last season produced 360,000 tons. Assuming that the yield in these countries is this season about the same as last season, a decrease of about 500,000 tons for Europe would still be shown. The following table shows the stocks at the beginning of September this year and in each of the two preceding years:

Countries, &c.	1885.	1884.	1883.
	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>
Germany.....	61,867	18,250	10,250
Great Britain.....	307,217	283,476	206,409
France.....	183,890	166,239	97,789
Holland.....	31,324	17,119	17,970
Belgium.....	51,805	22,786	11,812
Under sail for Europe.....	44,532	33,139	54,605
Arrivals in port.....	1,676	4,864	2,012
Totals .....	681,811	545,373	400,847
United States.....	158,801	160,138	123,767
Cuba.....	62,515	68,001	61,640
Totals .....	903,127	782,512	586,254

It will be seen, therefore, that the stocks showed an increase of 120,000 tons against the corresponding date last year, and 320,000 tons against 1883. Deducting this surplus from the decrease in the yield, a deficiency of 380,000 tons is still shown against last season. This falling off may be to some extent compensated for by an increased



export of Russian sugar, to promote which, it must be remembered, special measures, including the payment of bounties, have lately been adopted. The total quantity of Russian sugar on which bounties are to be paid, however, is fixed by the imperial decree at 33,000 tons, which must be shipped by January 1 next. This quantity will reduce the apparent deficiency of the European supply against last season to 350,000 tons in round figures. There are still the colonial crops to consider. On this point we have no definite information. Advices which we have lately quoted promise a brilliant yield in Fiji, and the Cuban yield is said to have shown exceptionally good results. The Queensland crop has been well spoken of; but, on the other hand, the statistical position in Austria generally is said to be a strong one. In Java the tendency appears to have been to a reduction of production, the financial crisis of last year having checked enterprise in this direction and weeded out some of the weaker producers. Altogether, taking one place with another, there is much to be said in support of the Vienna paper's conclusion that the colonial yield will not show an appreciable increase, and against it must be set the increase in European consumption, which has been estimated at 80,000 tons for the 1855-'86. The estimate of a diminished supply of 350,000 tons this season does not appear, therefore, improbable. The exports from Austria-Hungary alone, which amounted to 370,000 tons for 1884-'85, are likely in any case to show a decrease of 130,000 tons. The Vienna paper looks forward confidently to a further marked advance of prices. Such an advance in the value of so important a commodity could not fail to have a strong influence in reviving trade, especially if it should be accompanied by an upward movement in the prices of produce.

### CHEMNITZ.

#### REPORT BY CONSUL TANNER ON THE KRUPP IRON WORKS.

The Krupp Iron Works, which were founded in 1810, employed, in 1855, 693 workmen.

The number of workmen in 1882 was 10,598; the number of houses they occupied was 3,208, in which, including families, 16,200 people lived. These houses were built in flats, containing from two to five rooms, the rent of which ranged from \$16 to \$50 a year.

A boarding-house was also established by the managers of the Krupp Works which would accommodate 500 men, where dinner, with meat four times a week, coffee, butter, and everything provided but bread. A co-operative store exists, and has proven very beneficial to the operatives of Mr. Krupp. A sick-club has existed since 1856, and in 1882 had 11,011 members and a fund on hand of \$313,490.

The pensions in 1882 amounted to \$10,042, and the death liabilities to \$1,000. There is a sanitary committee in the works.

The works have had a fever hospital since 1871, and an infirmary since 1872. A disinfection house and appurtenances have also been instituted on Ditmar's plan. Baths are placed near the entrance of the works for the use of the working people.

In 1876 a life-insurance fund was started, and is now in a flourishing condition. A high school with twenty class-rooms, and a private school with sixteen rooms are among this gentleman's beneficent cares, and since 1876 five technical schools have been in existence, in which, among other instructions, women are taught household works, or the art of making home comfortable on a minimum of expenditure. Charities for disabled men, women, and invalids generally, have been in operation for more than ten years, where those not utterly disabled may prosecute light work, such as brooms, baskets, shoes, and other labor of the kind, which goes to the co-operative stores. In one week of the present year the number of laborers dependent upon and who received the benefits of Mr. Krupp's humane treatment was 65,381.

GEORGE C. TANNER,  
Consul.

UNITED STATES CONSULATE,  
Chemnitz, September 1, 1885.



## HUNGARY.

*REPORT BY CONSUL STERNÉ ON THE CEREAL PRODUCTS OF HUNGARY, 1885.*

In the following report on the crops of Hungary of the present year, 1885, the district of Croatia-Slavonia is not included. That district produces but little grain, being heavily timbered for the most part, and so will not materially alter the figures presented.

### WHEAT.

One hundred and fourteen millions of bushels of wheat were raised on 7,940,000 acres, the average per acre being about 14.4 bushels. In 1884 the quantity raised was 105,000,000 bushels, with an average yield of 13.2 bushels to the acre, and in 1883, 90,000,000 bushels, with an average of 12 bushels to the acre. This shows an excess for the present year of 11,000,000 bushels above the average of the three years and was therefore satisfactory as to quantity, though it does not equal the result for 1882, which was, however, one of the best years known in Hungary.

In quality the result for 1885 is even more satisfactory. The wheat is very superior in weight and color, and much of it possesses the character of being what is termed "Stahl-Weizen" (steel wheat), because of its hardness, a quality for which Hungarian wheat is celebrated in good years. In respect to general quality the present crop is specially superior to that of the preceding year, which was so deficient in this point as hardly to deserve the name of "Hungarian wheat," and brought the lowest price known for years, much of it yet being reported to be in the hands of the producers.

Notwithstanding these comparatively good results of 1885, the producers are anything but happy, for in spite of its very superior quality the wheat of 1885 sells at but little more than the very inferior article of 1884, and there is thus far very little demand for it. While it is true that the suddenly sprung "Bulgarian difficulty" has caused a slight advance and more life in the wheat market, the normal prices for the present can be quoted at 80 cents a bushel for fall, and 88 cents for spring delivery. To alleviate to some extent the present unfavorable condition the railways of the State have made some reductions in the rates of freight, but while such a remedy might cause some relief where there is only a question of competition with the other large grain-producing countries, the same will not cure the difficulty of to-day. While formerly there was only the bugbear of competition, by America first of all, it has now come in the shape of the wall of protection which the former customers of Hungary are erecting, the lately established additional duty on grain by Germany being the last brick in this wall.

### RESULTS OF COMPETITION.

This gradually growing unfavorable position of Hungary as a purely agricultural State is no doubt the cause of its present great effort to develop manufacturing and other industries. Thus it is hoped to overcome the danger by creating a larger home consumption which a manufacturing population is supposed to supply. More attention is to be paid

to the raising of cattle and the products of the dairy; and instead of placing the simple grain upon the market, as much of it as possible is to be converted into other forms, such as high wines, starch, &c., thus creating more profitable articles of export, and at the same time obviating the necessity of importing such articles. Even Hungary has an attack of the "protective fever." Sure it is that farming for grain only is not profitable at present prices, and much of it is carried on at a positive loss for many of the large estates are in the hands of masters who have made their contracts on a basis of the formerly ruling high prices and on leases running from 7 to 14 years.

I have said this much upon the subject of wheat because it is the most important product of Hungary, and also because the prices of wheat in Europe, and indirectly in America, are to some extent governed by the exhibit of Hungary.

#### OTHER CEREALS AND PRODUCTS.

Of other cereals there were raised :

*Rye* : 45,000,000 bushels at an average of 12 bushels an acre, being about the average yield for the past three years. In this quantity is included some wheat which is raised mixed with rye, a product that is a favorite article of consumption.

*Barley* : 48,000,000 bushels at an average of 15.6 bushels an acre. This is an increase in quantity as compared with former years (41,000,000 in 1884, and 27,500,000 in 1883), but the quality is not very satisfactory, the color having suffered by untimely rains.

*Oats* : 45,000,000 bushels at an average of 15 bushels to the acre, the yield being a little less than the average of the past three years.

*Corn* : Has the prospect of being a very abundant crop, and the quality also promises to become very good as the weather is favorable to a complete ripening.

*Wine* has a similarly favorable prospect, and for the same reason.

*Fruit and vegetables* : These have given an exceptionally good crop, with the exception of prunes, but the crop of the latter has been so large in the neighboring Bosnia and Servia that the prices are lower than they have been for years, being now \$3.30 to \$3.50 for 100 poods.

#### EXPORTS.

During the half-year ending December 31, 1884, Hungary exported grain of all sorts and flour to the value of \$30,000,000. The following table shows the distribution :

Articles.	Austria.	Germany.	England.	Switzerland.	France.
Wheat .....	\$6,600,000	\$650,000	.....	\$530,000	.....
Rye .....	2,500,000	90,000	.....	.....	.....
Barley .....	2,400,000	1,700,000	\$450,000	115,000	.....
Oats .....	1,500,000	.....	.....	24,000	.....
Indian corn .....	800,000	25,000	.....	6,000	.....
Beans .....	200,000	210,000	.....	110,000	\$73,000
Malt .....	70,000	70,000	.....	28,000	.....
Rice .....	100,000	.....	40,000	.....	.....
Flour * .....	5,600,000	650,000	2,250,000	480,000	600,000

\* The total exports of flour from Hungary for the entire year of 1884 were 3,930,000 barrels (of 196 pounds each) and of 1883, 3,980,000 barrels.

The other countries supplied were : Italy, Belgium, Holland, Russia, Bosnia, Servia, Roumania and the Balkan peninsula, all of which together take about \$1,000,000 worth. There is an additional amount of about \$160,000, chiefly sent in the form of flour to Brazil.

While Austria appears as the best customer of Hungary, much of the cereals credited to that country merely pass through it to be shipped to other countries.

#### IMPORTS.

On the other hand Hungary imports the same class of products to the value of \$3,800,000. Roumania contributes of this \$1,700,000 in wheat, barley, and Indian corn ; Servia, \$320,000 in wheat and a few other items ; Austria, \$400,000 in flour, rice, &c. ; England, \$275,000 in rice ; and Bosnia, \$120,000 in oats. The balance is principally in rice coming from other countries.

#### FRUITS, ETC.

Another group of agricultural products proper to mention in this connection is that of fruits, vegetables, seeds, plants, &c. Of these there was exported in the stated half year a total of \$5,400,000, the bulk of which went to Austria (\$3,500,000) and to Germany (\$1,400,000). The articles making these sums are mainly fresh fruit, grapes, and hops.

Against the above group there was imported a total of \$1,800,000, of which \$900,000 came from Austria, and the bulk of the rest in prunes from Bosnia and Servia, the two states sending \$750,000.

#### TOBACCO.

Further, I will mention the group of tobacco (unmanufactured), of which there is a total exported in the half-year of \$2,400,000. Of this \$1,600,000 goes to Austria ; \$55,000 to Germany ; \$19,000 to Switzerland ; \$70,000 to Italy ; \$440,000 to France, and \$205,000 to Holland and Belgium.

Against this there is imported unmanufactured tobacco to the value of \$600,000, about one-third of which comes from the "Balkan" countries (Turkey) ; another third comes from Austria, and the rest from "other states"—most likely America and Spain (Havana).

Hungary has the monopoly of manufacturing tobacco and cannot therefore practically in this shape export any. On the other hand it imports manufactured tobacco (cigars, smoking tobacco, &c.), to the amount of \$2,686,000, of which the "Balkan" countries contribute \$1,250,000 ; Austria, \$400,000 ; Germany, \$106,000 ; Switzerland, \$700,000, and other states, \$230,000. The customs duty is imposed regardless of quality, in consequence of which only the best cigars, &c. ("specialties") can be well imported.

HENRY STERNE,  
*Consul.*

UNITED STATES CONSULATE,  
*Budapesth, September 19, 1885.*

## AUSTRALIA.

*REPORT BY CONSUL GRIFFIN, OF SYDNEY, ON AUSTRALASIAN COPPER MINES.*

The copper mines of Australia are amongst the most famous in the world. The ores are so rich that they produce a metal in many respects quite equal to the best lake copper of the United States, and cheerful testimony to that fact is given by some of the foremost metallurgists in Europe and America. Mr. Albert Williams, jr., chief of the Division of Mining Statistics and Technology at Washington, D. C., says that the Australian mines in a certain sense are competitors of the American ones. He is also of the opinion that the lowering of price of copper will not affect seriously the supplies from Australia. At one time South Australia took the lead of all the other colonies in the production of copper but now New South Wales is the first in the list.

### PRODUCTION AND EXPORTS.

During the year 1883 New South Wales produced 8,873 tons of metal and 84 tons of ore valued at \$2,886,005, while South Australia produced 3,399 tons of metal and 18,887 tons of ore valued at \$1,876,625. The great bulk of the South Australia ore is sent abroad for smelting while that of New South Wales is refined at the mines. The copper product of New South Wales for 1883 was larger than that of any previous year in the history of the colony, the export being nearly double that of 1882. The export for 1884, however, declined both in quantity and value but as regards value it exceeded the average annual export by \$1,241,700 and the decennial average by \$323,080.

The value of the export of copper from South Australia for 1884 was considerably larger than that of 1883, but it was, however, still behind the export of New South Wales. The export of fine copper from South Australia during the year 1884 consisted of 9,144 cwt. valued at \$1,438,765, and the quantity of ore and regulus exported during the same period was 23,988 tons valued at \$907,585, making a total of \$2,346,350.

The export of fine copper was the largest since 1877, when it was 102,871 cwt., and the export of ore was the largest since 1882, when it was 25,897 tons.

Copper exists in vast quantities in various parts of Tasmania, but as yet very little has been done toward developing the industry. Land, however, has been leased by several companies for the purpose of mining for this metal, but the low price of copper has for the present checked their operations. In Queensland, where copper also exists in large quantities, but one mine, that of Mount Perry, was worked during 1884. A shaft in this mine was sunk to a depth of 900 feet and the lode at that depth contained from 10 to 12 inches of copper pyrites which yielded about 25 per cent. of metal. Work, however, in this mine was stopped toward the close of the year, the manager reporting that it had been determined to form another company and wait for the price of copper to advance to something like its normal value. Queensland produced only 2 tons of copper during the year and Victoria only 34. A number

of valuable copper lodes have also been opened in New Zealand, those in the district of Nelson proving especially rich, but as yet little progress has been made with them. The value of the exports of copper from all the Australasian colonies since the opening of the mines to the present time, has reached \$122,434,690.

#### COPPER DEPOSITS OF AUSTRALIA.

It would be difficult to form anything like a just estimate of the cupriferous formations of Australia from the fact that such a small extent of the country has been fully explored.

The known cupriferous area of New South Wales alone amounts to nearly 5,000,000 acres. In South Australia the lodes are distributed wherever the metamorphic and paleozoic rocks occur. As many as 40 mines have been opened in the latter colony; but few of them, however, are now worked on account of the low price of copper. The principal mines are the Hamley, Moonta, Wallaroo, Blueman, Victory, and Burra Burra. A shaft has been sunk at Moonta to a depth of 1,320 feet, and another at Wallaroo to 1,020 feet. In New South Wales the most valuable lodes occur in silurian slates. These ores consist principally in carbonates, metallic copper in films, red oxide, and grey and yellow sulphides.

#### GREAT COBAR MINE.

The Great Cobar copper mine is by far the most important one in New South Wales. It is situated 497 miles west of Sydney, in the center of the vast plains which lie between the Macquarie and Bogan Rivers. The ore is so rich and abundant that the industry has been a very profitable one until a very recent period, notwithstanding the great distance of the mine from the settled portion of the colony and the still more important fact of the country for miles around being almost wholly destitute of water. The produce of the mine has to be hauled by wagons a distance of 80 miles to Nyngan, the nearest railway station. The industry has caused quite a settlement to spring up at Cobar, and it is estimated that within a radius of 3 miles the population is between 3,000 and 4,000. There are in the town two banks, a club-house, several hotels, two churches, a newspaper, and a public school, with an average daily attendance of 130 pupils.

The Great Cobar mine gives employment to about 900 persons. The plant is the best in Australasia. The company, however, experiences great difficulty in getting the copper to market. Sometimes they have as much as 500 tons of metal waiting for teams to carry it to the railway station. During the year 1884 the number of miners employed in the Cobar district was 1,802. The amount of refined copper produced was 4,765 tons. The value of the plant is estimated at \$588,560. The value of the plant at the Great Cobar mine alone is \$425,000. This plant embraces the following articles, viz, 3 forty-horse-power engines, 2 stone breakers, 1 cracker, 1 jigger, 3 eight horse power engines, 1 Chilian mill, 2 pug mills, 2 air compressors, 8 rock drills, a tramway 11 miles in length, 6 locomotives (4 imported and 2 made in the colony), and 84 trucks. During the year 1884 the Great Cobar Company raised 21,561 tons of ore and smelted 23,899 tons, yielding 2,769 tons of fine copper. At the end of the year the company had at grass (ready for smelting) 1,000 tons of 10 per cent. ore, 5,000 tons 8 per cent., and 2,233 tons 5 per



cent. Up to the close of 1884 the company had smelted 122,795 tons of ore, the average yield of which was 13.17 per cent. of fine copper.

The greatest depth obtained by sinking the main shaft in the Great Cobar mine is 664 feet, from which diamond drills have been driven 60 feet farther. The lode at this depth, according to the last report of Mr. W. H. H. Slee, inspector of mines, exhibits a thickness of 40 feet of fair, yellow, sulphide ore. Stoping is carried on in various parts of this mine. It will be well enough here to explain that the word "stoping" is a mining term for the drives that are made to reach the wall on each side of the lode. The drives are the tunnelings from the shafts. The miners work upwards from the levels, the object being to exhaust the whole of the lode and as fast as a stope is worked out it is filled in and another drive made. With the exception of the 54 fathom level the ores obtained are carbonates, oxides, and grey ores, which average about 16 per cent. of copper. A new discovery of ore has been made between the 29 and 26 fathom level, which yielded 14 per cent. of fine copper.

Mr. Slee states that independently of this new find, it will take years to work out the different copper ores in sight and known to exist in the mine. The average thickness of the lode on the 29-fathom level is 110 feet.

The capital of the great Cobar Copper Mining Company is £80,000 (\$389,320) in £1 (\$4.86) shares. The quantity of ore at this mine on the 1st of January, 1885, was 10,697 tons. During the half year ended June 30, 9,538 tons were raised, 12,003 tons were smelted, which produced 1,408 tons of refined copper, leaving 8,233 tons of ore to be smelted.

#### THE NYMAGEE COPPER MINE.

The Nymagee copper mine is next in importance to the Great Cobar. This mine is situated near the town of Nymagee, in the Cobar district, about 440 miles west of Sydney, in the electorate of Balranald. The town has a population of about 1,500 persons, composed principally of miners, 500 of whom are employed at the Nymagee mine. This mine raised during the year 1884 14,748 tons of ore, and smelted 14,743 tons, yielding 2,207 tons of fine copper. Up to the end of 1884 the company had smelted 37,650 tons of ore, the percentage of which averaged 15.73 of metal. The width of the lode is from 4 to 12 feet. Stoping is carried on in different parts of the mine. I learn from Mr. Slee's report that some of the shoots of ore stoped upon contain large masses of rich copper. Some of this ore is raised and broken at the small cost of 4 shillings (97 cents) per ton. Large quantities of carbonates are obtained near the surface, which are mixed with yellow sulphides in smelting. In section 8 a prospecting shaft has been sunk on the brow of a hill, on which there is a large outcrop of hematitic iron. The shaft is 147 feet in depth; a drive of 293 feet has been driven south of the shaft, and at the end of this drive a winze of about 40 feet in depth has been sunk.

During the year 1884 several new furnaces were erected. The total number of furnaces now in operation at the mines is 15. The yellow sulphide ore is crushed, and forced through a wire screen, ten holes to a square inch, after which it is taken on the tram lines to the calciners. By the calcining process the ore is reduced in weight fully 25 per cent. and increased in percentage 3 to 4 per cent., which enables the smelters to mix nearly two-thirds of sulphides in a charge of 21 cwt. of ore.



The capital of the Nymagee Copper Mining Company is the same as that of the Great Cobar, viz, £80,000 (\$389,320). At their last half-yearly meeting, June 30, 1885, the chairman reported that in spite of the low price of copper their operations had been so successful that the sum of £19,032 12s. 6d. (\$92,158.76) had been placed to the credit of profit and loss. He stated that it was determined to distribute this sum as follows:

	£	s.	d.
To payment of dividend of 1s. per share on September 1 .....	4,000	0	0
Leaving a balance to be carried forward .....	15,032	12	6
	<hr/>		
	19,032	12	6

#### NEW MOUNT HOPE MINE.

The New Mount Hope copper mine is the third in rank in the colony, and it is also in the Cobar district, 90 miles south of the Great Cobar mine.

The main lode in the New Mount Hope mine is in ferruginous sandstone. During the year 1884 the output of this mine was 6,149 tons 20 per cent. ore, 1,426 tons 12 per cent. ore, and 757 tons of 6 per cent. ore. The value of the fine copper produced was \$270,000. The shaft is 340 feet deep. The width of the lode is from 10 to 50 feet. The lode consists of shoots and bunches of rich oxides, carbonates, and gray ores. These deposits occur in altered sandstone and belts of iron sandstone formations. It is said that there is no other mine in New South Wales which produces such interesting geological specimens of copper ores. Pieces varying from a few pounds to a ton in weight can be procured containing all the different carbonates, oxides, and sulphide ores.

#### THE GREAT CENTRAL AND OTHER MINES.

The Great Central copper mine is situated 4 miles south of New Mount Hope, on a high hill, in porphyry formations. The ores are of high quality. During the year 1884 the Great Central Company raised 2,221 tons of ore, from which they obtained 236 tons of fine copper. There are seven shafts, varying in depth from 82 feet to 206. The deepest level is 150 feet and the widest part of the lode is 13 feet. It has been proposed to open up other levels on different parts of the lodes, and it is said that a shaft will shortly be sunk 400 feet in depth. There are a number of other mines in the colony that promise very favorable results. The Cheshire copper mine at Cudgegong shows a shoot of ore 46 feet wide, yielding 8 to 10 per cent. of copper. This ore appears in shoots, not in a continuous lode. At Blayney, a new copper lode, 2 feet in width, has been found within one mile of the town containing rich gray ore. The Boone West copper mine has a lode 6 feet in width. About half a mile west is the Big Ben lode. The lode at Nowendoc, which was abandoned a few years ago, has been started again. Satisfactory assays have been made from the lodes at Scrubby Bush, Sounding Rock, near Trunkey, Glanmire, near Bathurst, and Burraga.

ASSAYS OF ORES.

I am indebted to Mr. Wood, under-secretary for mines of this colony, for the following assays of copper ore made during the year 1884 :

Locality.	Description of mineral.	Copper.	Per ton.	
			Gold.	Silver.
		Per cent.	Oz. Dwt.	Oz. Dwt.
Belara .....	Carbonate of copper in talcose schist .....	14. 12	.....	.....
Do.....	Gray sulphide of copper with quartz.....	14. 10	.....	.....
Do.....	Talcose schist, with little carbonate, sulphide, and black oxide.....	8. 15	.....	.....
Do.....	Copper and iron pyrites, with little sinclende ...	1. 40	.....	.....
Burrage .....	Quartz, with copper and iron pyrites, and a little galena .....	9. 0	Nil.	1 12½
Capartee.....	Quartz, with sulphide of copper, galena, little red oxide, and carbonate of copper.....	16. 95	.....	.....
Carona.....	Copper ore.....	24. 55	3	4 12½
Coatigan's Mount..	Iron ore, with carbonate of copper.....	27. 15	Trace.	9 5
Cudgegong .....	Sulphide of copper.....	80. 8	.....	.....
Deepwater.....	Carbonate of copper and blende .....	18. 85	.....	9 16
Eden.....	Copper ore, from 36 miles northwest of Eden .....	84. 0	Trace.	6 10½
Ginderbyne.....	Quartz, with copper pyrites .....	20. 5	do .....	4 1½
Goulburn .....	Ferruginous quartz, with green carbonate of copper .....	2. 6	.....	Trace.
Gundagai.....	Serpentine, with green and blue carbonates of copper .....	8. 0	.....	.....
Mount Gipps .....	Compact brown iron ore, with green carbonate of copper .....	22. 9	.....	98
Do.....	Copper ore, 5 miles southeast of Broken Hill.....	40. 75	.....	4 18
Palmer's Oakley ...	Quartz and calcite, with yellow sulphide of copper .....	8. 5	.....	.....
Do.....	Ferruginous rocks, with calcite and a little carbonate and sulphide of copper .....	1. 4	.....	.....
Do.....	Clay-stone, with traces of green carbonate of copper .....	6. 1	.....	.....
Parkes District....	Oxides of copper in clay slate and iron.....	16. 5	.....	Trace.
Do.....	Oxide of iron and carbonate of copper .....	6. 2	.....	.....
Purnamoota .....	Ironstone, with green carbonate of copper .....	23. 25	.....	.....
Silverton.....	Carbonate of copper in ironstone and quartz .....	83. 3	Trace.	5 14
Do.....	Copper ore, from Dowd's .....	16. 70	do .....	3 5
Strathbogie.....	Copper and arsenical pyrites .....	88. 95	do .....	13 1
Swallow's Nest .....	Gossan, with copper pyrites and green carbonate of copper.....	21. 85	do .....	.....
Shoalhaven .....	Ferruginous quartz, stained with carbonate of copper .....	4. 9	.....	.....
Shoalhaven River..	Quartz and copper pyrites.....	24. 25	Trace.	1 4½
Thackaringa.....	Copper ore, with garnets .....	28. 5	do .....	3 6
Uralla .....	Brown iron ore, with iron pyrites and green carbonate of copper .....	6. 77	do .....	2 0
Do.....	Quartz, with carbonate of copper .....	18. 65	.....	Trace.
Wellington .....	Carbonate and sulphide of copper .....	32. 05	Trace.	3 5
Do.....	Oxide of iron, with green carbonate of copper .....	80. 6	do .....	0 16
Do.....	Gray sulphide and carbonate of copper .....	47. 10	do .....	3 5
Do.....	Gray sulphide .....	14. 15	.....	.....
Wilcannia .....	Copper ore, about 80 miles northwest of Wilcannia.....	12. 2	Trace.	Nil.
Do.....	Copper ore.....	10. 0	do .....	.....
Do.....	Copper ore.....	23. 9	do .....	.....
Wyndham .....	Ferruginous quartz, with sulphide and carbonate of copper.....	11. 10	.....	1 12½
Do.....	Quartz, talcose schist, and green carbonate of copper .....	84. 55	.....	.....

The richest specimens were found at Wellington, 240 miles northwest of Sydney. The town of Wellington is situated at the junction of Macquarie and Bell Rivers, 1,000 feet above the sea, at the foot of a mountain range. Wellington, together with the township of Montiflore, on the opposite side of the Macquarie River, contains about 2,500 inhabitants. The district in which this mine is located is a rich agricultural one, and at the same time is noted for the large number of auriferous reefs it contains. The reefs, however, have not been worked, and little more than prospecting has been done with the cupriferous lodes.

There are a great many varieties of copper ores distributed throughout the colony; but the sulphides, carbonates, and oxides are those principally relied upon for the production of refined copper.

## OCCURRENCE OF ORES.

Professor Liversidge, in his valuable work on the minerals of New South Wales, states that the variety of copper pyrites known as peacock ore, from the splendor that it acquires, is found in nearly all the metalliferous districts, at Cobar County, Robinson, Bingera, Elsmore (county Murchison), Clarence (county Clarence), Wiseman's Creek and Oberon (county Westmoreland), Wellington district with zinc blende, steatite quartz, and abestus, ophir. Carcoar, Cow Flat, and Mitchell's Creek (county Bathurst), Wallabadah (county Buckland), Cargo and Molong (county Ashburnham), Peelwood (county Roxburg), at Tuena (county Buccleugh), Kiandra (county Wallace), Gordon, Brooke (county Richmond), Snowball mine (county Clarendon), Dundee (county Gough), Goodrich (county Gordon), Cootalantra mine and Belmore mine (county Auckland), Nymagee (county Mouramba), Solferino (county Argyle), and at Malline Creek, between Goulburn and Braidwood. Professor Liversidge mentions that crystallized native copper is by no means rare in New South Wales, but that large and well-developed crystals, as elsewhere, are uncommon. It is found in plates, in threads, wires, and arborescent forms, and contains traces of silver, lead, bismuth, and other metals. In nearly all cases it is associated with cuprite malachite, and other oxidized copper ores. Red copper ore is found in various places in the colony, and is abundant at Cobar, both in massive and crystallized forms. It is also met with in Richmond, Vernon, Phillip, Argyle, and other counties. Black oxide of copper is also frequently met with in the form of black powder. Massive or sporadic green carbonate of copper (malachite) occurs in various forms, massive and crystals, the various layers often possessing different shades of color, forming a beautiful stone for ornamental and inlaying purposes. Professor Liversidge states that the crystals found at Cobar are particularly beautiful, the silky luster being very remarkable. The capillary crystals are sometimes several inches long and compacted together into fibrous bundles. Malachite is found in most of the upper workings of the copper mines. Blue carbonate of copper is also found in various parts of the colony, the best specimens coming from Cobar. Atacamite also occurs in the Cobar mines. A specimen of a dark translucent green color with vitreous luster and apple green-streak gave the following analysis:

Water lost at 105° .....	.536
Combined .....	13.955
Copper oxide .....	64.709
Copper chloride .....	13.218
Silica and insoluble matter .....	7.599
	<hr/>
	100.017

Blue vitriol or copper sulphate is often met with in a form of efflorescence or incrustation. Copper glance is found both in the massive and crystallized state. Silicious redruthite, a peculiar copper ore, occurs at Carcoar. It is of a dark, almost black color. It resembles redruthite, but is of a duller luster and is very much harder. Purple ore and gray copper ore are not uncommon there.

## EXPORTS OF COPPER.

The bulk of copper exported from New South Wales is in ingots, and is smelted at the mines.

The subjoined table shows the quantity and value of copper ingots exported from New South Wales for each year from 1875 to 1884 inclusive:

Year.	Quantity.		Value.
	<i>Tons. Owt.</i>		
1875.....	3,520	0	\$1,486,670
1876.....	3,106	0	1,215,710
1877.....	4,153	0	1,535,905
1878.....	4,983	0	1,687,045
1879.....	5,106	15	1,282,185
1880.....	5,262	10	1,796,300
1881.....	5,361	0	1,750,435
1882.....	4,865	8	1,609,485
1883.....	8,872	17	2,872,485
1884.....	7,286	6	2,078,005

## EXPORTS OF ORE AND REGULUS.

The value of copper ore and regulus exported from New South Wales in 1884 was \$2,890, against \$13,520 for the year previous. I give below a table showing the quantity and value of the ore and regulus exported for each year since 1875.

Year.	Quantity.		Value.
	<i>Tons. Owt.</i>		
1875.....	157	0	\$21,780
1876.....	169	0	34,180
1877.....	360	0	85,225
1878.....	236	0	38,745
1879.....	36	7	4,575
1880.....	131	18½	23,995
1881.....	132	16	24,875
1882.....	93	1	14,200
1883.....	84	10	13,520
1884.....	18	18	2,890

The following table shows the quantity and value of refined copper exported from New South Wales for the first six months of the present year and the names of the countries to which exported:

Country.	Quantity.		Value.
	<i>Tons. Owt.</i>		
Great Britain.....	2,836	6	\$677,895
Victoria.....	40	4	8,795
South Australia.....	4	2	915
New Zealand.....	11	2	2,625
Queensland.....	18	13	4,745
Calcutta.....	725	19	172,505
Bombay.....	80	8	18,700

## THE COPPER MARKET.

The vast increase in the output of the copper mines of the United States during the last few years has completely revolutionized the price of copper. The refined copper of the United States has something more than a restricted home market, and is finding its way into various parts

of the world. The American refining works are unsurpassed. Those of Pope Cole & Co. of Baltimore, the Oxford Sulphur and Copper Company of New York, the Jersey Extraction Works at Elizabeth, N. J., the Phoenixville Works, Pennsylvania, and the Chicago Copper Company of Chicago, Ill., have now a world-wide reputation.

This overproduction, if it can be so called, during the last few years has evidently affected the copper industry of Australasia, as many of the mines cannot be worked profitably, and although the exports from New South Wales and South Australia for the first six months of the present year compare very favorably with those of 1884, the various copper mining companies of Australia have been forced to admit that at present there is very little money in copper. The shares of the Great Cobar Company have declined within the last six months from £4 (\$19.46) to 12 shillings (\$2.92) each. The shares of the Nymagee Company have also declined in a like proportion.

At the eighth ordinary meeting of the Great Central Copper Mining Company held in this city on the 20th instant, a report was read which showed that during the half year 262 tons of copper had been refined, 120 tons had been shipped under advance, 38 tons had been shipped without advance, 66 tons had been sold in Sydney, and 127 tons were on hand on the 30th of June. The continued fall in the price of copper referred to in the last half yearly report had not abated, the value of copper being now £3 (\$14.59) less than it was then.

The balance at debit at profit and loss was \$25,205 against \$18,815 on the 31st of December, 1884, being a deficit of \$6,390. In the statement of accounts submitted, the amount \$12,255 had been included at the estimated reclamation on copper shipped under advance, an amount which really belonged to previous half year's operations. On the other hand the contingent assets, not included in the figures forming the balance sheets, were on the 31st of December, 1884, \$16,290, and on the 30th of June, 1885, \$7,375. Taking these figures into consideration the half year's operations left a loss of \$3,050. The refined copper produced at the works of this company is of very fair quality, but it is nothing like so good as that of the Nymagee Company which is said to be the best in the colony. Indeed it often sells in London for \$30 per ton more than that of the Great Cobar. The Cobar copper, however, contains a high percentage of bismuth, and is of course not so valuable for plating purposes. It is interesting to note that, notwithstanding the marked difference in the relative value of the Nymagee and Cobar copper in the London market, that the two articles sell for about the same price in Sydney. One reason assigned for this is that considerable quantities of the Cobar product are exported to India, where it answers the purposes of the market quite as well as the Nymagee copper, and fetches fully as high a price.

There seems to be a very general impression here that the price of copper will not remain long at its present low figure. The metal is such a useful one, and enters into such an infinite variety of manufactures that the constantly increasing demand for it must of necessity occasion an advance in its cost. Those who think to the contrary, point to the fact that the introduction of new and improved machinery has materially lessened the price of the metal and will lessen the cost of production still more in the near future.

In the United States in the year 1875, the cost of the production of Lake Superior copper at many of the leading mines was as high as 22 cents per pound; now it is less than 7 cents per pound.

It should also be remembered that the United States, from being the



third in the list, has leaped to the position of the greatest copper-producing country in the world, producing more than 30 per cent. of the whole copper supplies of the world, as compared with only about 15 per cent. in 1879.

The production of copper now is so vast that the market is not so apt to be controlled by a syndicate as formerly. In order to show to what extent the price of the metal has declined within the last few years, I will mention that on the 30th of June, 1885, the stocks of copper in London amounted to 54,137 tons, valued at £44 10s. (\$216.55) per ton. The price of copper on June 30, 1883, in London, was £64 (\$311.45) per ton, and the stocks on hand were 48,462 tons. On June 30, 1884, the price declined to £54 2s. 6d. (\$263.39) per ton, and on June 30, 1885, it declined, as I have before stated, to £44 10s. (\$216.55) per ton.

#### COPPER SMELTING.

The bulk of machinery used in Australia for smelting copper is imported from Britain, very little coming from the United States. The American machinery is very generally acknowledged to be superior to all others, but it is almost an impossibility to overcome the prejudices of the Australians in favor of purchasing all kinds of mining machinery in Europe. The furnaces used are the ordinary, old-fashioned cupola ones, and with them the process of smelting copper is both tedious and expensive.

From time to time the managers of the principal mines in the colony have expressed the opinion that some other and more economic process will have to be adopted for the treatment of copper ores, and especially of sulphurets. Indeed, Mr. Jolly, the manager of the Nymagee mine, stated recently that the falling off in the output of the mine was to be attributed to the present method of smelting refractory ores. He said that in treating large quantities of sulphides it is necessary to produce a low percentage regulus, which is very difficult to work up into refined copper by the old process. Hundreds of tons of regulus have been made at Nymagee, which would not assay more than 35 per cent., and which could not be avoided in the absence of other ores.

Mr. Jolly employed during the last six months four reducing furnaces, equal to five roasting, and even with them the regulus was accumulating, and after consultation with Mr. Blakemore, the head smelter, they determined that some change was necessary in order to make the work profitable; they therefore introduced a cold blast of air into the reverberatory furnace, on the surface of the liquid metal, the motive power being a duplex engine and Root's blower. The furnace, Mr. Jolly states, is charged in the usual way with 10 or 12 tons of regulus, and fired on until the whole mass is liquefied, after which the blast is applied, and by this means one furnace can be made to do the work of three, in the ordinary way of working. An objection was made to the effect that the blast was driving small particles of copper into the stack, but Mr. Jolly said that this difficulty could be overcome by the construction of a large culvert and stack some distance from the furnace.

Not long ago the Great Cobar and Nymagee mines introduced a new process for smelting copper, invented by the celebrated French metallurgist, M. Manhes. The process had been in use at the Parot Silver and Copper Mining Works, in Montana, United States of America, and at Mr. Vivian's great smelting works, at Swansea, and very favorable results were expected from it here. The furnaces which were erected at the Great Cobar, and at the Nymagee mines, for the purpose of smelt-



ing by this process have not given as much satisfaction as was expected ; nevertheless the principle has been shown to be good. In the process the ores are subjected to a simple fusion in a low-blast or cupola furnace for the purpose of obtaining a regulus or matte, and slagging away the earthy matter. The converter is constructed after the model of a Bessemer one, with blast holes only on one side. Clog wheels and a crank incline the converter in such a way that the molten mass can be blasted at any desired level. Hitherto the attempts at blasting copper have all failed for the reason that the blast going through the whole mass, the melted copper got chilled. In the new process the copper produced is collected at the bottom, when by a turn of the crank the blasting takes place on a higher level ; gradually in this manner till the end of the operation the blast passes through matter containing combustible elements, the metal is not chilled, and the blast holes do not get choked. The copper produced by this converter, it is said, is almost pure, containing 98 to 99 per cent. of pure metal. The whole operation lasts from fifteen to forty-five minutes, according to the purity of the matter introduced into the converter, the ore having been previously melted in a cupola furnace without any preliminary calcination. It is stated that by this process only two operations are required where formerly eight were used, and that the saving in fuel, labor, and time is remarkable.

#### THE COST OF FREIGHT.

The cost of freight on copper ore, or ingots, from Sydney to London, is usually nominal. From March to November it is required by sailing vessels and steamers for ballast, and in some cases a small premium is paid for it. During this period the only charge made by steamers is from 1*s.* (24 cents), to 2*s.* 6*d.* (60 cents) per ton. It forms an admirable ballast for cargoes of wool. When hides can be procured copper is not so much in demand, as a sufficient quantity of hides will enable ships to dispense with ore as ballast.

G. W. GRIFFIN,  
*Consul.*

UNITED STATES CONSULATE,  
*Sydney, New South Wales, September 9, 1885.*

## SPAIN.

### REPORT ON CHOLERA.

Edward H. Strobel, charge d'affairs *ad interim* at Madrid, transmits, under date October 2, 1885, the following report on cholera in Spain, by W. T. Van Vredenburg, M. D., of New York :

#### THE CHOLERA IN SPAIN, 1885.

##### PREDISPOSING CAUSES ; PERSONAL, AND THOSE DUE TO ENVIRONMENT.

*Personal.*—Weakened constitution, and therefore weakened resisting power, from any cause whatsoever, chiefly due to poverty, insufficient and innutritious food, lack of personal cleanliness, previous disease, pregnancy.

*Age.*—For of those attacked by the disease, the first are the poor, the weak, the aged and infants, while children, youth, women, and men follow in the order named.

*Fear.*—In this disease this mental condition seems to have a predisposing influence.

**Environment.**—General hygienic condition of dwellings; ignorance, carelessness, superstition, and fatalism; poverty, uncleanness, and overcrowding of lower classes; excremental pollution; imperfect or in many cases absence of all drainage and sewerage; proximity of cesspools, drains, and sewers to wells and other sources of water-supply (both sets of reservoirs being imperfectly built of porous material, and in the case of the cesspool allowing liquid contents to escape in surrounding subsoil); and lastly, the most potent factor in the distribution of the poison of cholera the use of contaminated water for drinking and other purposes.

All of these predisposing causes, both personal and environing, may exist and be favorable to the development of other of the so-called "dirt-diseases," such as typhoid fever, diphtheria, &c., as they are to the development of cholera; but these previously existing conditions cannot by themselves cause or produce cholera. It has been proved very conclusively that cholera only originates in India, and it has never been known to appear *de novo* in any other part of the world but India, and it has always been possible to discover, trace, and follow its course to whatever other part of the world it has been carried and where it has manifested itself. If the poison of the disease is brought into a locality which presents the conditions enumerated, the cholera germs or "bacilli" will there find all the conditions most favorable for their development and multiplication.

I have spent the four months of June, July, August, and September in Spain for the purpose of studying the cholera, and I find all of these predisposing causes, especially those of environment, existing to such a marked degree, that my surprise is not that this epidemic of cholera has been so severe, but that it has not been much worse.

When one considers the entire absence of knowledge existing in regard to the simplest hygienic laws and sanitary conditions necessary to health among the people of all classes, and the limited knowledge on these subjects among those who should instruct the people, it can only be ascribed to a happy combination of circumstances that all, instead of a part, of this peninsula has not been ravaged by the cholera.

Wherever excremental pollution is rife, if once the disease obtains a footing it is almost certain to assume epidemic proportions, for the "unknown quantity" the *x*—of cholera is closely associated with excremental pollution. Three conditions described as being practically the causes of cholera in this country, namely, "excrement-polluted earth, excrement-polluted air, and excrement-polluted water," are manifestly in full and active operation.

Ordinary rules and customs that govern people in other countries are strangely absent in this land. In most villages, towns, and cities the lanes and streets, not alone those that are retired, but the more public as well, are made the receptacles for this description of refuse at all times, and at Aranjuez, during the epidemic of cholera there last July, in the houses where those ill of the disease had families to nurse them and were allowed to remain, the cholera "dejecta," which should be so thoroughly and carefully disinfected and disposed of, were in some instances thrown out into the streets and into the back yards; the sheets stained by the patients were exposed for days spread out over the gardens and lawns, and the wind freely distributed far and wide the poison that had come from the bodies of the patients.

Sanitary precautions there were utterly disregarded, and knowledge of the terrible consequences that must accrue from this filthy carelessness seemed altogether wanting. This is only an isolated case of the existing ignorance of the people of the danger which is sure to result from carelessness in disposing of cholera dejecta. Disinfection, when practiced, is intrusted to utterly incompetent persons, and must be entirely inefficacious.

In Toledo, in two instances, the bedding and furniture of patients who had died of cholera were bought by second-hand dealers, put into their shops, and offered for sale, and these two places subsequently became new *foci* from which the cholera spread. In all of the smaller towns and cities, and most of the larger ones, not excepting the capital, the condition of the sewers and system of drainage has been a subject that no one has thought worthy of investigation; and in one large city, capital of a province, when several physicians, sent down into Spain by their respective Governments to study the disease, asked the civil authorities if they had any plan or chart of the main sewers and drains of the city, the authorities hardly knew what the physicians meant, and did not know what need there was for any such information.

During the occupation of Spain by the Moors, that cleanly people thought so highly of personal purity, and obvious advantages of plenty of pure good water—the use of which, indeed, formed part of their religion—that they built everywhere in their dominions aqueducts, reservoirs, fountains, drains, and sewers, and used the natural advantages of the soil, when existing, to turn the springs and water-courses to their use and advantage, and as far as one can judge from what is left of their architectural monuments they had a most perfect system of water supply, and equally perfect system of drainage and sewerage.

In most of the towns and cities of Spain the inhabitants depend solely on the sewers and drains built during the Moorish occupation. I have visited many small towns where the only drain was the remnant of a huge brick sewer, the upper part being entirely open and exposed. And through this sluggishly ran a dirty stream, into which the inhabitants threw all of their refuse. These open canals, as they might be called, usually run through the main streets, and the people living in the immediate vicinity can hardly do otherwise than breathe the emanations arising from these foul streams under the hot summer sun of Spain.

There is no drainage, as the subject is usually understood, in most of the small towns and villages. Many of the houses are built directly on the ground, and the first story (usually the only one) has no other floor than the earth.

Most of the houses are very old; they are crowded together in dark, narrow, tortuous, dirty streets, with small filthy back yards, in which are sometimes the wells, though just as often these are sunken in the "earth" floors of the houses. In these small towns and villages there are no cesspools nor closets, as the streets are used for such purposes and are made receptacles for every sort of refuse.

In larger cities one sees in the vestibule of a handsome house a large circular stone sunk in the floor, and on inquiry one finds that this stone is the cover of the common cesspool of the house, placed there for some reason best known to the people themselves.

When modern sewers do exist, as in Madrid, they are constructed of a thin porous brick sunk in a dry, porous soil, eager to drink up any liquid which it can obtain, and the porosity of the brick allows the liquid contents to escape into the surrounding subsoil. Neither are the cesspools water-tight; if they are constructed of mason work, which is not often the case, they are made of this same porous brick, and they contaminate the surrounding soil; for the dangers of a cesspool depend almost entirely on the tendency of its contents to escape into the surrounding earth, and thus obtain access to wells and other sources of water supply.

The water supply of Madrid is, without question, the best in Spain. The sources of the Lozaya are brought from a distance of 32 miles.

Unfortunately the water-course is not covered throughout, and it might easily be polluted. The Government seems to recognize this danger, and has placed three hundred "guardias civiles" along all the exposed portions of the canal, and these men watch day and night to see that there is no pollution.

The water, however, must approach the city at a somewhat lower level than the porous sewers, and it is quite possible that percolation through the earth may find entrance into it. Such percolation can often be traced to long distances, and there is at least one well-authenticated instance, that furnished by the epidemic at Lausen, near Basle, in 1882, of the poison of typhoid fever reaching a water-course a mile distant from the spot where that poison was originally deposited, and after an amount of filtration through earth which had entirely arrested particles of flour. The custom that prevails in cities of Southern Europe of washing soiled linen in the fountains and streams to which the people go for water for domestic purposes is objectionable and dangerous, especially during a season of cholera, when water polluted in this manner and as well by sewerage runs over the land and settles in low-lying districts or empties itself into streams, rivers, or other sources of water supply and becomes a new focus for the development of cholera; as has been plainly demonstrated in the case of the city of Aranjuez, to which mention has been already made.

The topography of Madrid is very favorable to its effective drainage, as all the surrounding and arid plains are on a lower level than the city itself; the sewers fall into these plains, the water forming a course for itself until it is lost in barren soil, or joins the river Manzanares. The natural topographical advantages altogether disappear as soon as the sewerage leaves the town. Lying to the south of Madrid is a huge main sewer or stream where nearly all the drainage of Madrid accumulates, and forms an open pond. The fall of the sewers in the city is equal to six in a hundred, but here it is hardly one in a thousand; it is so slight that heavy rains cause it to overflow, and it was here amid the group of houses in the plain of Pennela that the first case of cholera occurred on the 22d of May last. This semi-stagnant cloaca is only a few hundred yards beyond the densely populated poorest quarter of Madrid.

Aranjuez, 30 miles from the capital, is south of Madrid, occupying comparatively low ground, on the angle formed by the junction of the rivers Tagus and Jarama.

The river Manzanares, which carries off a large portion of the sewerage of Madrid, falls into the Jarama about 12 miles from the capital. The first village beyond this point has been exempt from cholera, but this is an argument in favor of the contamination of the Jarama by the Madrid sewerage; for at this village, San Martin de la Vega, there is an excellent supply of spring water, and the inhabitants do not drink from the river.

Immediately beyond, however, at Ciempozuelas and among the clusters of cottages on the banks of the river, where its waters were drunk, cholera wrought havoc.

Leaving the Jarama, and traveling in a southerly direction, we reach the banks of

the Tagus; here there is no cholera, until at a distance of more than 50 miles from Madrid the Tagus receives the waters of the Jarama, which in its turn has been fed by the sewers of the capital. There the cholera is at once manifested, and ravages the rural population. So far, the evidence seems most conclusive, particularly as the cholera appeared first in this region at Madrid, and the dates of the different outbreaks allow ample time for the infection to travel down these water-courses.

We have here a very clear instance of river pollution and its natural consequences. In the way of poverty, personal dirt and uncleanness, and overcrowding among the lower poor, there is nothing in Spanish cities which might not be equalled in other countries; but these conditions, when superadded to the notoriously imperfect system of drainage and sewerage that prevails in Spain, enormously increase its otherwise sufficient powers for evil. Accumulations of filthy and cholera-tainted rags, and the innumerable other sources of filth supply, must all be regarded as important contributors towards maintaining the prevalence and providing for the diffusion of the disease.

A few words about prevention in regard to cholera.

Nearly all lands are agreed that reliance on quarantine alone is insufficient to prevent the introduction of cholera into a previously healthy district, and to limit it after its presence is an established fact.

A wiser plan would be to inspect unostentatiously all new arrivals from a suspected or infected locality, and carefully follow all cases in which there may be even a suspicion of the disease. The best method of limitation is to secure a building in an isolated but healthy situation, to have nurses and doctors ready to proceed to the building where first cases can be strictly isolated; inspection and disinfection daily of all closets, cess-pools, sewers, and drains, and reconstruction when necessary, using non-porous materials, building good, narrow, easily-flushed drains and sewers, and have them flushed with sufficient water at frequent intervals. Organize hospitals, prevent overcrowding in poor-houses and other public institutions, feed the poorer classes well, and look into condition of their dwellings, closets, and drains, frequently and rigorously.

Disinfect houses where disease has settled, removing sick to special hospital, isolating other inmates for a sufficient time (as is practiced at Gibraltar, where those exposed to disease by the presence of a case in their dwellings are removed to tents outside the city); proper care of patients' bedding, burning contents of, and immerse ticking, &c., in boiling water, filter and boil all water used for drinking and domestic purposes, and above all things cut off an infected water supply and see that water used is plenty and free from contamination.

WILLIAM T. VAN VREDENBURGH, M. D.

MADRID, October, 1885.

## BRAZIL.

### REPORT BY CONSUL-GENERAL ARMSTRONG ON TOILET SOAPS IN BRAZIL.\*

In accordance with Department's instructions of the 5th ultimo, I have the honor to transmit herewith such information as I have been able to obtain as to the trade in toilet soaps in Brazil.

The bulk of the toilet soap used in this country is of fine quality. The demand comes almost altogether from the upper and middle classes, who prefer and are able to buy the finest goods in the market. These classes are much addicted to the use of perfumery, and the fine-scented soaps meet with ready sale among them.

The soap in common use among the lower classes is of inferior quality and generally unscented. The demand for this kind of goods is met by home manufacturers.

By far the greater portion of fine soap sold in this market is exported from France and England, the United States having done very little in this line. A gentleman who has been in business in this city for a number of years informs me that the only American toilet soap which has found any considerable sale in Rio is the "Cashmere Bouquet," manu-

\*A report on the same subject by Consul Williams (Havana, Cuba) was printed in Consular Reports, No. 57, October, 1885.

factured by Messrs. Colgate & Co., of New York. This brand has won a fair measure of public favor.

Among the fine soaps which are popular here are those manufactured by Lubin, by Pinaud, and by Piver, of Paris, and by Messrs. Piesse & Lubin, of London. The soaps made by Pear, of London, seem to be making considerable headway here. His brand called the "Transparent" sells readily at 1 milreis (a sum equivalent to about 40 cents) per cake, or 10 milreis per dozen.

His half-crown brand, perfumed with otto of roses, retails at about 80 cents a cake, or \$8 dollars per dozen. Colgate's Cashmere Bouquet, referred to above, retails at 40 cents per cake; Piesse & Lubin's "Palace" at from \$1 to \$1.75 per cake. The French soaps average about the same prices.

#### IMPORTS OF SOAP AND DUTIES.

In the Brazilian schedule of tariff duties toilet soap is included under the head of articles of perfumery. Hence it has been impossible, I regret to say, to secure data as to the importation of this class of goods.

On toilet soaps (classed, as above stated, as perfumery) the Government levies a specific duty of 1 milreis per kilo, or about 18 cents per pound. This duty is based on the weight, not only of the soap, but also of the wrappings and boxes, with the exception of packing cases.

The duty on unscented soap is much smaller, being about 2 cents per pound for the common article, 3½ cents per pound for common yellow, and 7 cents for common white. This great disparity of duties on the two classes of goods lends a strong probability of success to a scheme which has been talked of in Rio, viz, that of importing the common grades of soap, and by proper appliances working them into the superior perfumed goods, which, of course, could be put on the market at lower figures than imported goods of the same quality, paying duty as such. Perhaps American manufacturers might find this idea worthy of consideration.

#### MARKET FOR AMERICAN SOAPS.

As to the introduction of American goods into Brazil, manufacturers should bear in mind that Brazilians are slow to abandon, in favor of new competing goods, those of long-established use and reputation.

To overcome this obstacle goods should be introduced at lower than regular prices, and they should be put in the hands of some reputable firm in Brazil, who understand the needs of the trade and who appreciate the inestimable advantages of advertising in the public prints and otherwise.

Manufacturers must count on little or no profit until, by these methods, their goods become established in the confidence and favor of the public. It is a sacrifice which they must make in order to reap ultimate profits.

H. CLAY ARMSTRONG,  
*Consul-General.*

UNITED STATES CONSULATE-GENERAL,  
*Rio de Janeiro, September 12, 1885.*



MALTA.

REPORT BY CONSUL WORTHINGTON ON SHIPPING AND TRADE WITH THE UNITED STATES.

SHIPPING.

The increase of shipping touching at this port during the months of June and July, 1885, over the returns for the corresponding months of 1884, shows an increased activity of trade. The number of ships arriving in both periods was :

Class and nationality.	1884.		1885.		Increase.	
	June.	July.	June.	July.	June.	July.
Steamers :						
British.....	261	209	353	330	.....	.....
Other.....	45	30	54	63	.....	.....
Total .....	206	248	407	393	101	145
Sailing vessels :						
Italian .....	90	84	92	106	.....	.....
Other.....	44	66	74	60	.....	.....
Total .....	134	150	166	166	32	16

The quantity of coal imported from England in the same period was 82,691 tons in 1884 and 129,622 tons in 1885.  
No ship flying the American flag has been in this port during the months of June and July, 1885.

AMERICAN WARES.

More and better grades of American goods are being sold in this island than ever before. They are brought here in English bottoms, sometimes direct, but usually via Liverpool.  
It is to be regretted that our merchants and manufacturers do not more energetically develop and push the Malta trade, which I am confident is in a favorable condition to be expanded for their profit. Malta can also be made a center for the distribution of our goods (by means of the small crafts that ply to and fro) along the coasts of Barbary, Sicily, and Lower Italy. There are numerous villages in those countries that lie in shallow harbors where only small craft can enter. These little traders are already doing an active carrying trade between Malta and such ports as I have alluded to.  
It is to be regretted that American goods are not brought direct to Malta instead of via England. An American brig that came here a few months since with a mixed cargo from New York made, I am informed, a handsome profit on the cruise to both its consignors and its captain and crew. After discharging here it crossed over to Sicily and loaded with salt for Boston.

JOHN WORTHINGTON,  
Consul.

UNITED STATES CONSULATE.  
Malta, August 10, 1885.



## ECUADOR.

## REPORT BY CONSUL-GENERAL BEACH ON IMPORT AND EXPORT DUTIES.

The Congress of Ecuador which adjourned in August, 1885, just before adjournment adopted an entire new tariff system, by which all import duties are collected by weight, and which system changes the tariff rate on all articles of importation, on some very radically. Lumber, and perhaps some other articles hitherto brought from the United States, will now be excluded by the high duties.

This tariff becomes operative November 1, 1885.

The duty in all cases is on gross weight.

To the duties as given under each caption 20 per centum will be added, which is devoted to schools, streets, and roads. It is added to and collected with the other duties named.

The value of a sucre changes slightly with changes in rates of exchange. At the date of this report the sucre has a value of 77 cents in United States currency.

A kilogram is within a slight fraction of 2½ pounds. Forty-six kilograms are usually rated as 100 pounds, but are a trifle more.

On and after November 1, 1885, invoices are required to be taken at ports of shipment, for certifying which the fee is 2 sucres. The manifest of the cargo for a port has also to be certified, for which certification the fee is 6 sucres.

HORATIO N. BEACH,  
*Consul-General.*

UNITED STATES CONSULATE-GENERAL,  
*Guayaquil, September 11, 1885.*

## ARTICLE 1.—ARTICLES FORBIDDEN IMPORTATION.

Cannon-balls, explosive shells, grenades, gun metallic cartridges, and other war ammunition.

Articles of drink and food which contain poisonous or injurious substances.

Carbines, guns, fire-arms, fire-crackers, shooting-pistols, and all other war material.

Dynamite and all other analogous explosive substances.

Printed matter, statues, pictures, books, &c., contrary to morality or religion.

Kerosene of less than 150° strength.

Machines or apparatus for coining counterfeit or other coin not allowed by law.

Gunpowder and salt, as long as the Government monopoly lasts.

Only the Government can import, for the use of the nation, war material, copper and nickel coin, coining apparatus, and other articles comprised in this classification, except those given in paragraphs 5 and 8.

## ARTICLE 2.—ARTICLES FREE OF DUTY.

The baggage of travelers not having a weight greater than 92 kilograms per person, when the traveler and his baggage come by the same steamer. For any excess duties will be collected. It is understood that baggage consists of articles for personal use, such as clothing, shoes, watches, bedding, saddle, arms, or instruments of the traveler's profession, even if they have never been used.

Pitch, tar, cordage, copper, ducking, and all other articles which are imported for the construction and calking of vessels, estimate having been previously presented to the captain of the port, vised by him, and approved by the committee of finance.

The natural and manufactured products of Peru and of the United States of Colombia, of national commerce, and not of a prohibited importation into Ecuador, when

they are imported through land or dry ports. The exemption will last as long as Ecuadorian products have the same exemption in Peru or the United States of Colombia. When the reciprocity ends this exemption will likewise cease with the nation that withdraws.

The articles that are imported for the use of the churches and Catholic clergy, with a permit order from the Government in requests authorized by the respective dioceses, prelates, or the vicar-general, accompanied by the bill of lading and invoice.

The articles destined for the personal use of the public ministers or foreign diplomatic agents credited to the Government of Ecuador, if it is reciprocal on the part of the governments they represent. The foreign diplomatic agent will present to the collector of customs or the commandant of revenue, together with the passport, a written and signed list of the number of packages, their marks and numbers, and, if articles are not sent with them on the same vehicle, they will address themselves to the minister of foreign relations, informing him of the articles which they are importing for their personal use, in order that the corresponding order of discharge be issued to the collector of customs.

The machinery, implements, nitrate of silver, and other substances and utensils destined to be used in the working of mines.

The articles for the foreign religious institutes established in the country, and which, by virtue of contracts previous to this law, had this concession. This concession will not be retired if said contracts are renewed.

The articles destined for the development of public instruction, or for the use of charitable institutions, with a permit from the Government, who, on application from the highest authority of the respective branches of instruction, or from the institution, will give it.

The articles that may come for account of the Government, destined for some purpose of utility or for public adornment.

Also, the following articles: Living animals, fire-engines, boats and small vessels, iron buoys, vessels complete or in parts, sweet potatoes, bituminous coal and coke, onions, dried fruits, guano, lint for wounds, birds' eggs, sugar machinery, brick, fresh vegetables, printed books and pamphlets, corn, rubber hose for fire-engines, materials for railroads and telegraphs, silver and gold coin, fresh clams and oysters, masts for vessels, potatoes, wooden oars, silver in paste or bars, saltpeter, life-preservers, and all kinds of seeds.

The executive power is authorized to permit importation free of duties, articles for municipalities destined for city lighting and other public uses, whether the work is carried on by a private company or a municipality.

#### ARTICLE 3.—ARTICLES 50 CENTS PER KILOGRAM.

Articles made of gold and silver, valuable stones, silk; all classes of textiles which have silk, silver and gold, or metallic threads in imitation of them; all sewn articles, and all articles sewn and mixed with gold, silver, and silk; tobacco in leaf or manufactured.

#### ARTICLE 4.—ARTICLES 37 CENTS PER KILOGRAM.

Woolen articles or raw wool, mixed or unmixed, as long as the articles named in the preceding article do not form part.

#### ARTICLE 5.—ARTICLES 12 CENTS PER KILOGRAM.

Linseed oil, olive oil, castor oil, almond oil, harmoniums, olives in any form, varnish, billiard tables, earthen vessels, empty barrels, barrels containing wine or other liquid, common glassware, beer in whatever manner it may be put up, carriages, statues more than a meter long, musical instruments more than a meter high, fine crockery, navy canvas for sails, marble stones, mausoleums or stones of more than a meter; furniture put up; paint in powder, paste, or put up in any other manner; water fountains for gardens or other use, wheels of more than a meter, wines however they may be put up, glass, vinegar.

#### ARTICLE 6.—ARTICLES 5 CENTS PER KILOGRAM.

Harness for carts, almonds, canary-seed, dried peas, starch, ironware, corn starch, sugar, manufactured steel, achiotes, poisoned liquids for manufacturing purposes, cotton with or without seed, codfish, barometers, sea compasses, Roman cement, salt beef, Chilian cocoanuts, cumin seed, cocoa in beans, coffee in grains or crushed, fresh or dried cocoanuts as those of Guayaquil, panela sugar, manufactured tin; oakum of all classes, iron rakes for weeds, wooden and marble statues for public use more than a meter long, macaroni, dried fruits and other eatables, cramp iron, wheat flour, maize flour, tin plates, dried peaches, dried figs, waste, hams, kerosene of 150 or more

degrees in strength, linseed, common crockery, microscopes, agricultural machinery of all classes, manufacturing machinery, cutlasses, lard, corn starch for eating purposes, small shot, sewing-machines, blocks; ordinary metals in plates, bars, or pieces; printed, written, or lithographed music; walnuts, lampblack, church organs, pepper, paper, raisins, lead, dried fish, salt fish, stone of all classes, mats for grain and rice, marble fountains, iron fountains, fountains of any material for public use, framed slates, slates without frames, slate pencils, earthen retorts for machinery, wheels uniform in size, empty bags, wheat, clay or earth for use in casting, printing ink, spinning-wheels, iron tubes, vanilla, zinc.

**ARTICLE 7.—ARTICLES 2 CENTS PER KILOGRAM.**

Peas, beans, wire fence, rice, bran, steel, tar, plows, picks, crowbars, shovels, hoes, pruning-knives for agricultural use, anchors, empty bottles, iron chains, lime, iron trusses for roofs, barley, wheelbarrows, carts, iron and wire nails; iron in pieces, plates, and bars; corrugated iron, printing presses and necessities, firewood, hops, pikes, iron hammers, broom-corn.

**ARTICLE 8.—ARTICLES NOT ENUMERATED.**

All articles which are not named or comprised, by reason of their identity in the seven preceding classes, will pay 25 cents of a sucre import duties for every kilogram of gross weight, that is with packing included.

**ARTICLE 9.—MERCHANDISE TO BE INVOICED.**

The Ecuadorian consuls at the ports where the shipments are made will certify the manifests and invoices that shall be presented to him by the ship-owner and shippers in triplicate, of which one will be returned to the ship-owner, another will be sent to the collector of customs of the port where the ship is destined, and the third one to the minister of finance of Ecuador. In case there is no Ecuadorian consul, the shipments will be certified by a consul of a friendly nation, and if there are no consular officers, it will be done by the local authority. The consular fee for manifests is 6 sucres, and for invoices, 2 sucres.

**EXPORT DUTIES.**

The following new tariff of export duties went into immediate operation. The tariff is rated upon a sucre at 100 cents, but which is worth in United States currency 77 cents:

Cocoa.....	per 100 pounds..	\$0 30
Coffee.....	do....	20
Tan-bark.....	do....	30
India rubber.....	do....	2 30
Untanned hides.....	do....	23
Orchilla.....	do....	23
Toquilla hat straw.....	do....	4 60
Mocora hat straw.....	do....	1 84
Ivory nuts.....	do....	10
Sarsaparilla.....	do....	23
Tanned hides.....	each..	10

**GUADELOUPE.**

Under date of September 17, 1885, Consul Charles Bartlett transmits the new tariff, framed at a special session of the General Council in July, 1885:

The General Council of Guadeloupe and its dependencies considering that, under the double influence of the crisis the country is laboring under and the decrease of the revenue of the import duties of the tariff now in force, the receipts from this taxation having undergone a considerable reduction, which is important in the interest of the communes and should not be permitted to be aggravated; considering beside that practice has revealed the necessity of completing in some points the list of the

assessed articles and to correct the exaggerations of certain duties, the result of evident errors, have decided that the tariff of import duties in force in the colony shall be modified as follows :

Articles.	New rate.	Old rate.
	Francs.	Francs.
Asses ..... each ..	3	2
Game cocks ..... do ..	3	1
Poultry and game ..... per dozen	1. 20	1
Pork, salted ..... per 100 kilograms ..	10	.....
Ham and smoked tongues ..... do ..	20	15
Sausages, preserved and dressed meats, and meat extracts ..... do ..	30	.....
Lard ..... do ..	10	5
Cheese ..... do ..	12	10
Butter, salted in firkins .. per 20 kilograms ..	2	1. 50
Salted fish, other than cod ..... per 100 kilograms ..	1. 50	1
Fish oils, cod-liver oil ..... do ..	15	5
Bread and biscuit ..... do ..	2. 50	2
Dry vegetables (beans and peas and their meal) ..... per hectoliter ..	2	1
Fecula, gruel, vermicelli ..... per 100 kilograms ..	7	5
Fruits, salted or in vinegar ..... do ..	11	9
Pepper, ginger ..... do ..	9	7. 20
Turpentine, and its spirit ..... do ..	7	5
Table oil :		
In cases ..... do ..	20	15
In baskets ..... do ..	12	10
In casks or otherwise ..... do ..	10	6
Pitch-pine lumber ..... per 100 meters ..	4	3
White-pine lumber ..... do ..	3	2
White-pine shingles ..... per 1,000 ..	1. 50	1
Stones and earth, used in the arts or building ..... ? ..	. 10	5
Large fire bricks, for ovens ..... per cent. ad valorem ..	5	.....
Bitumen, tar-pitch ..... per 100 kilograms ..	1	. 00
Galvanized sheet-iron ..... do ..	2. 50	10
Salt ..... do ..	1	. 50
Ink, writing and printing, blacking ..... per cent. ..	6	.....
Paints, not enumerated, dry, mixed or liquid ..... per 100 kilograms ..	6	5
Soap, other than perfumery ..... do ..	4	3
Patent candles ..... do ..	15	10
Tallow candles ..... do ..	8	.....
Haberdashery, ribbons, lace, embroideries, lawns, table-cloths, shawls of all descriptions, hammocks, carpets, oil-cloths ..... per cent. ad valorem ..	10	8
Bags for packing produce ..... do ..	3	9
Silk fabrics, handkerchiefs ..... piece of seven ..	1. 70	1. 40
Ready-made clothing, cotton, woolen, or linen ..... per cent. ad valorem ..	10	{ 5 9
Pasteboard, cards, and printed paper not otherwise provided for ..... do ..	6	5
Dressed skins or hides, morocco glazed ..... per 100 kilograms ..	100	90
Dressed hides, other ..... per cent. ad valorem ..	9	6
Cordage, tarred ..... per 100 kilograms ..	7	6
Cordage, other, twine, fishing lines ..... do ..	10	8
Machinery of all kinds ..... per cent. ad valorem ..	6	3
Iron and cast-iron works, other ..... do ..	6	.....
Nails, coopers ..... per 100 kilograms ..	3	1. 50
Carriages on springs, two seats, without top ..... each ..	80	50
Carriages on springs, four seats, without top ..... do ..	120	80
Toys, and others ..... per cent. ad valorem ..	10	7
Pianos, new or second-hand ..... each ..	100	80
Millinery goods ..... per cent. ad valorem ..	12	9
Haberdashery and toys ..... do ..	6	5

EXEMPT.

Are exonerated from duty all the articles composing the furniture or clothing of strangers coming to establish themselves in the colony, or citizens returning home, when the articles bear the trace of use. These dispositions, however, are not to be applied to household provisions, carriages, horses, or harnesses.  
Deliberated at Pointe-à-Pitre July 3, 1845.

GUILLOID,  
President.

Secretaries :  
    HANNE.  
    LACASCADE.

SAN DOMINGO.

Consul Thomas Simpson (Puerto Plata) sends, under date September 30, 1885, the new scale of export duties to be levied by the Dominican Government after October 1, 1885:

Horns.....	100..	\$0 25
Sugar.....	per quintal..	25
Estates grinding by steam pay one-half the established rates for the first crop only.		
Starch.....	per barrel..	50
Logwood, lignum-vitæ, fustic, and similar woods.....	per ton..	1 00
Tortoise shell.....	per pound..	25
Wax, white or yellow.....	per quintal..	1 50
Mahogany or satinwood.....	per 1,000 feet..	5 00
Mahogany crotches.....	do.....	10 00
Cedar, oak, and similar woods.....	do.....	1 00
Cow-hides.....	each..	10
Goat, sheep, and hog-skins.....	dozen..	25
Divi divi.....	ton..	1 00
Honey.....	gallon..	02
Molasses.....	do.....	01
Tobacco, leaf.....	quintal..	75
Coffee.....	do.....	75
Cocoa.....	do.....	75

SAN SALVADOR.

Consul J. Maurice Duke, San Salvador, transmits, under date September 22, 1885, the following memorandum on the Government monopoly of rum in the Republic:

The Republic of San Salvador is divided into nineteen distilling districts, and the right of distilling in each, which is a Government monopoly, is sold at auction every four years to the highest bidder, who can be the possessor of the right to distill for one or more districts.

The purchaser, however, does not become the active owner of the right until two years after purchase, at the expiration of which he enters into formal possession on October 1, which is the first day of the fiscal year.

He is bound by contract to supply the demand in his district or districts, failing which he is mulcted in full for the deficit.

The Government purchases the liquor from the distiller at the rate of 13 cents per bottle of 24 ounces for rum of 21° (Cartier areometer), and 19 cents for prepared of 23°, and sells at 62½ and 75 cents, respectively (in Salvador currency, five and six "reales").

The higher price of the prepared spirit is due to its superior strength and flavor, anise seed, sassafras, or coriander being used in its composition.

The liquor is disposed of to the public, (1) through the Government deposits, one for each distilling district; (2) through the estanquillos, which are only licensed to vend the common spirit or rum, and cantinas, both of which are licensed retail establishments. A premium of 7 per cent. for common and 10 per cent. for prepared liquor is given to the licensed venders, and allowed by the Government to the distillers.

Reference to the tabular statement will show the sum this premium cost the Government in the fiscal year of 1884, as well as the amounts realized by the sale of right to distill, licenses act as mentioned at the beginning of this dispatch.

The venders must retail the spirit at the price and strength at which it is supplied to them from the distilleries.

Government inspectors visit the shops to see that these regulations are carried into effect.

As a protective measure a quardiente or rum has an import duty of \$10 per dozen bottles.

Alcohol of 30° is sold to the Government at 30 cents, and of 35° at 35 cents; the Government sells it at 7 reales or 87½ cents the former, and at 8 reales or a dollar the latter.

The Government only buys the amount that the venders need.

*Table showing the movement of revenue from aguardiente (rum) in 1884.*

Government stores .....	19
Estanquillos.....	358
Cantinas.....	313

Consumption:	Bottles, oza.
Allowances to wholesale buyers .....	83,246 19
Allowances to retail buyers.....	27,092 12
Sales of common spirit .....	1,091,111 02
Sales of prepared spirit .....	270,293 18
Sales of alcohol of various degrees .....	6,059 06
Total .....	1,477,803 09

#### GROSS PROCEEDS.

From the sale of—	
Common spirit .....	\$733,973 66
Prepared spirit.....	223,039 72
Alcohol of various degrees.....	5,887 13
Licenses .....	56,023 81
Total .....	1,018,924 32

#### EXPENSES.

Paid to distillers for—	
Common spirit.....	\$154,283 14
Prepared spirit .....	56,511 23
Alcohol of various degrees.....	2,032 60
Total .....	212,826 97
Wages and charges of the administration .....	42,627 15
Discount allowed to wholesale and retail buyers.....	72,348 62
Extra expenses.....	110 25
	327,912 99
Net proceeds for the year 1884 .....	691,011 33

*Comparison of revenue from the distillation and sale of rum in the years 1883-'84.*

Net proceeds in 1884 .....	\$691,011 33	
Right of distilling in 1884 .....	23,275 00	
		714,286 33
Net proceeds in 1883.....	658,584 24	
Right of distilling in 1883 .....	23,275 00	
		681,859 24
Increase in 1884.....		32,427 09

	Bottles, oza.
Consumption in 1884 .....	1,477,803 09
Consumption in 1883 .....	1,430,282 13
Increase in 1884 .....	47,520 20



## HAWAIIAN ISLANDS.

Minister George W. Merrill (October 10, 1885) sends the report of the collector-general showing the import and export trade of Hawaii for corresponding periods in 1884 and 1885:

OFFICE OF COLLECTOR-GENERAL,  
Honolulu, October 3, 1885.

*His Excellency the Minister of Finance:*

SIR: I have the honor to hand to your excellency a table showing the value and quantity of domestic exports for the three months ending September 30, 1885, also a comparative table of exports for the nine months, 1885, and the corresponding period, 1884, showing a total increase in the value of exports of \$638,004.44 for the nine months just ended.

I have also the honor to submit to your excellency a statement of the value of all imports for the six months ending June 30, 1885, as compared with the corresponding period of 1884. The table shows a decrease in the value of imports of \$735,468.30, or a falling off in the value of dutiable imports of two-fifths, or 40 per cent.

The comparative table of customs receipts for the same period show a deficit of \$40,531.48, or 13½ per cent. A statement of arrivals of merchantmen at Honolulu for the same period shows a decrease in tonnage of 808, and a total decrease of \$268,945.95 in the value of cargoes.

CURTIS P. IAUKEA,  
Collector-General.

*Domestic exports, Hawaiian Islands, for quarter ending September 30, 1885.*

Articles.	Quantity.	Value.
Sugar .....	pounds.. 27, 770, 901	\$1, 879, 804 91
Molasses .....	gallons.. 18, 856	2, 451 2½
Rice .....	pounds.. 1, 998, 500	118, 782 82
Bananas .....	bunches.. 13, 826	13, 747 50
Goat-skins .....	packages.. 6, 648	3, 765 40
Hides .....	do.. 5, 145	20, 059 87
Betel leaves .....	boxes.. 68	350 00
Sheep-skins .....	packages.. 1, 960	213 00
Sundries .....		1, 367 10
Total value exports .....		1, 540, 491 25

*Domestic exports, Hawaiian Islands, nine months, 1885, compared with nine months, 1884.*

Articles.	1885.	1884.	Increase.	Decrease.
Sugar .....	pounds.. 149, 644, 276	124, 549, 452	25, 094, 824	
Molasses .....	gallons.. 46, 382	81, 772		35, 390
Rice .....	pounds.. 5, 883, 853	7, 161, 200		1, 277, 347
Bananas .....	bunches.. 43, 678	38, 790	4, 874	
Goat-skins .....	packages.. 16, 445	16, 183	262	
Hides .....	do.. 15, 336	15, 164	172	
Betel leaves .....	boxes.. 281	356		75
Sheep-skins .....	packages.. 7, 563	5, 310	2, 253	
Coffee .....	pounds.. 1, 875	4, 081		2, 206
Calf-skins .....	packages.. 26	117		91
Wool .....	pounds.. 71, 639	207, 757		136, 118
Dried bananas .....	boxes.. 892		892	
Paddy .....	pounds..	46, 224		46, 224
Fungus .....	do..	1, 721		1, 721
Tallow .....	do..	2, 864		2, 864
Total value of exports .....	\$7, 665, 116 70	\$7, 027, 112 26	\$638, 004 44	

## IMPORTS INTO THE HAWAIIAN ISLANDS.

*Total imports of the Hawaiian Islands for six months ending June 30, 1885, compared with corresponding period, 1884.*

Items.	1885.	1884.	Decrease.
Value goods paying duty .....	\$449,837 60	\$754,385 51	\$304,547 91
Value spirits .....	16,876 05	22,320 21	5,444 16
Value bonded goods .....	26,405 56	60,337 46	33,931 90
Value bonded spirits .....	70,074 74	98,128 51	28,053 77
Value goods free by treaty .....	1,047,411 71	1,368,384 15	320,972 44
Value goods free by C. code .....	111,254 08	153,772 20	42,518 12
<b>Total imports .....</b>	<b>1,721,859 74</b>	<b>2,457,328 04</b>	<b>735,468 30</b>

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**UNITED STATES CONSULAR REPORTS.**

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**REPORTS**  
**FROM THE**  
**CONSULS OF THE UNITED STATES**  
**ON THE**  
**LEATHER AND SHOE INDUSTRIES**  
**IN THEIR**  
**SEVERAL DISTRICTS,**  
**IN ANSWER TO**  
**A CIRCULAR FROM THE DEPARTMENT OF STATE.**

No. 39.—December, 1885.

**PUBLISHED BY THE DEPARTMENT OF STATE, ACCORDING TO ACT OF CONGRESS.**

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**WASHINGTON:**  
**GOVERNMENT PRINTING OFFICE.**  
**1885.**

**206 A—DEC**





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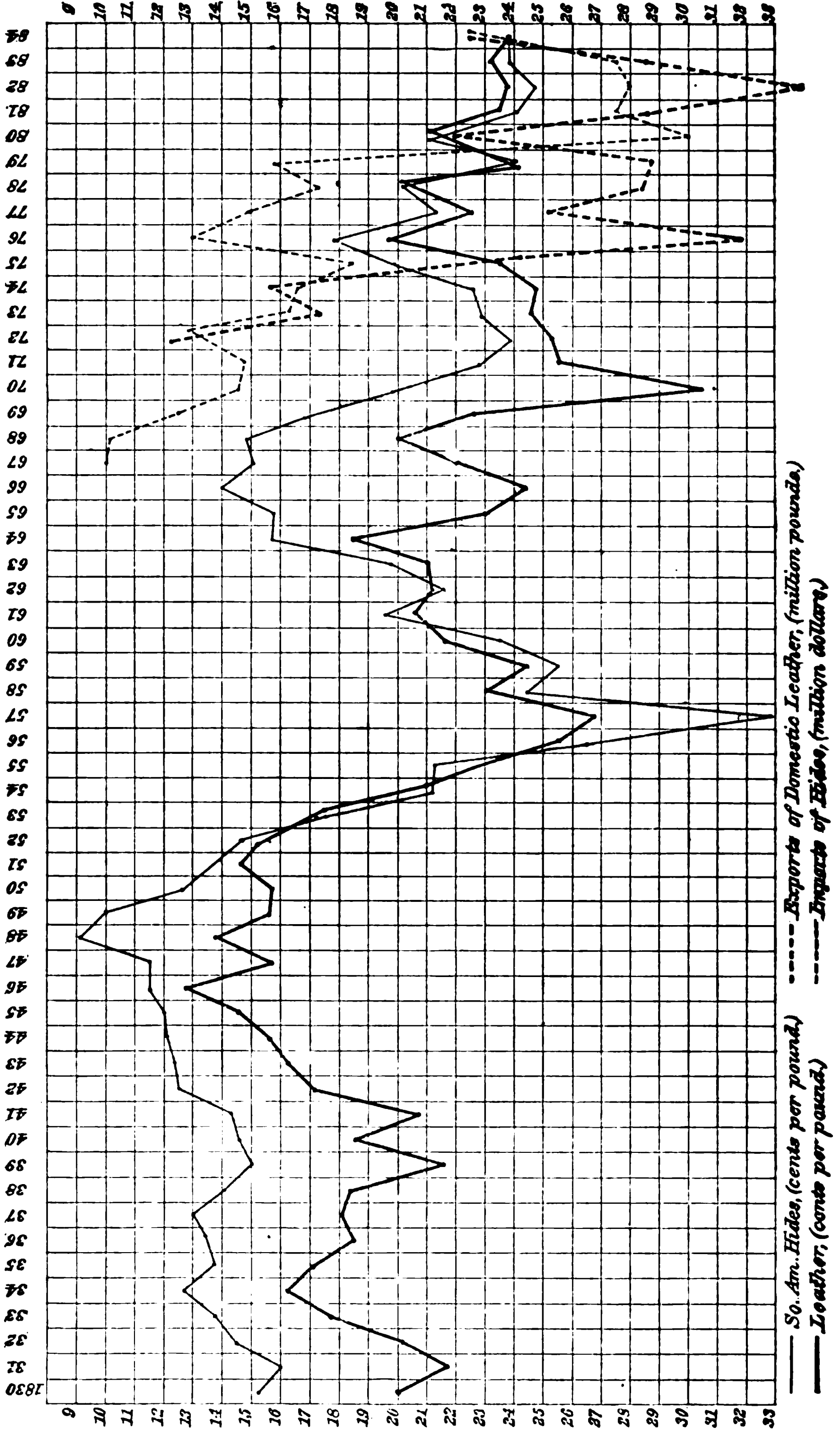
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Prices, imports and exports of hides and leather.





CONSULAR REPORTS  
ON  
COMMERCE, MANUFACTURES, ETC.

No. 59.—DECEMBER, 1885.

INTRODUCTORY NOTE.

The reports contained in this issue of the "Consular Reports" were prepared in accordance with the instructions contained in the following circular:

DEPARTMENT OF STATE,  
Washington, April 6, 1885.

*To the Consuls-General, Consuls, and Commercial and Consular Agents of the United States:*

GENTLEMEN: The proprietors of "The Boot and Shoe Recorder" of Boston having, in behalf of the shoe and leather industries of the United States, represented to the Department that certain information concerning similar industries in foreign countries would be of great importance to our shoe and leather trade, you are requested to make the necessary investigations into the conditions of the industries under consideration in your respective districts, and report the results to the Department at your earliest convenience.

The scope of your investigations and reports will cover the following conditions:

1. LEATHER.

The condition and extent of the leather industry.

Whence the hides and skins are obtained, and their cost at the tanneries.

The materials used in tanning, and the source of supply.

The quantity of leather manufactured, and where the output is consumed.

Leather imports, kinds and amounts.

Imports from the United States.

How American leather compares with manufactures of other countries.

How American leather suits the market.

Faults found, if any, with American leather, and how the same may be remedied.

The best means for the introduction and enlargement of trade in American leather.

The names of trustworthy persons engaged in the import of leather, particularly those engaged in the import of American leather, or who would be likely to engage therein. Such persons or firms should be consulted as to the terms upon which they would act for American houses.

2. BOOTS AND SHOES.

To what extent is the factory system of shoemaking carried on?

Is machinery used in this manufacture, and to what extent?

What class or styles of boots and shoes are made and generally worn? In this connection the information cannot be too full, covering not only the styles, but the sizes, shape, &c., especially among the classes wherein American manufactures might be likely to succeed.

Where the output of the respective districts is consumed.

Imports of boots and shoes, and whence imported.

Imports of American boots and shoes, and how they compare with the manufactures of other countries.

How American boots and shoes suit the markets.

Faults, if any, found with American boots and shoes, and how the same may be remedied.

The best means for the introduction and enlargement of American trade in boots and shoes.

The names of trustworthy persons engaged in the imports of boots and shoes, &c., (see last interrogatory in regard to leather).

### 3. MISCELLANEOUS.

Give the rates of duties on imports of boots and shoes and leather, and state whether such duties are discriminatory, or assessed alike on the manufactures of all countries.

Give full information as to the manner in which boots and shoes and leather are and should be placed on the market, and in regard to packing, shipping, &c.

Consuls will, of course, understand that, while general interests will be subserved by full reports on the conditions of the shoe and leather industries, as well as the conditions by which these are immediately affected, the chief motive of this circular is the enlargement of our exports of the manufactures under consideration, and special attention will, therefore, be directed to securing such information as will enable the shoe and leather manufacturers and exporters of the United States to fully comprehend the conditions which affect the several markets—in a word, which will enable our manufacturers to form opinions as to whether the trade possibilities of the several markets will repay them for the outlay and trouble which must necessarily be spent in placing their manufactures successfully thereon.

In districts where the conditions embraced herein do not exist consular officers are expected to report on the conditions which do exist, no matter how crude these may be. Irrespective of the interest which may be excited and the advantages which may be derived from a bird's-eye view of the conditions which prevail throughout the world's markets, it may turn out that our shoe and leather manufacturers by adapting their output to the tastes of the consumers will be enabled to build up trade in unexpected places.

I am, gentlemen, your obedient servant,

JAS. D. PORTER,  
*Assistant Secretary.*

The reports were thus confined to a specific inquiry—the opportunities offered to extend the market for American leather, and more especially sole leather, and for boots and shoes of American manufacture. The processes employed in preparing hides and skins were not included, though where the consular officer described them, his description has been retained. The general extent of the tanning interest, the sources from which the materials are obtained, the statistics of imports and exports, and the position of the factory system in the leather and shoe industries, such were the main points to be covered, and the reports as a rule give a satisfactory reply to the questions asked. The absence of official statistics and the reticence of the tanners and manufacturers have thrown serious obstacles in the way of obtaining full and definite information. What has been learned, however, points to some important conclusions, which it will be well to emphasize.

In foreign markets the American goods must meet with two kinds of obstacles, natural and artificial.

The most formidable natural obstacle meeting the American exporter lies in the habits and tastes of the people of the country wherein he looks for a market. In many no shoes are worn; in others a light sandal, perhaps of a material other than leather; and in still others a low shoe, made of a leather prepared by a special process and better adapted for the purposes of foot wear than any that could be produced in this country. Even where shoes are in common use, the tastes of the people offer an almost insuperable obstacle, for they rest upon cus-

toms, prejudices, and national pride, which are most conservative elements and are but gradually and only after a severe struggle affected by trade, competition, or innovation. The shoemaker is found in every land, and is an almost necessary adjunct to every town and village. He occupies a position from which he cannot be ousted, and, especially in the nations of continental Europe, represents the boot and shoe industry. In the United States and England alone has the factory system of shoemaking become general, and while it is making progress in Germany and France, it is met by the conservatism of the people, who depend chiefly upon the low-priced custom-made shoe, which is better suited to their needs and taste. The poverty of the people in some nations will be found to render the export of American shoes impossible, for the local shoemaker, working with the least possible expense and producing shoes at a cost which would not return to the American manufacturer the actual expenses of production, controls the market. It is only a question of time when a large part of this custom-work will yield to the product of machinery, but at present the custom shoemaker must be counted among the most active of the influences tending to discourage a trade in American shoes. He is fortified by a marked difference in the size and general form of the foot of the people among whom he lives. A shoe turned out in an American factory is suited to but few foreign markets, because it is of a shape not adapted to the national tastes and needs of those markets; and to this cause, rather than to any defects or faults in materials or manufacture, are the small export of American goods and the narrow line of markets due. Out of a total export of boots and shoes of 502,122 pairs during the fiscal year ending June 30, 1884, 488,919 pairs were taken by the American continent and adjacent islands, 1,985 pairs by Europe, 5,456 pairs by Asia, and the balance by Africa and Australia. The following tables will show more clearly the principal lines of distribution.

Countries.	Pairs.	Countries.	Pairs.
<b>South America:</b>		<b>Central America.....</b>	<b>36,968</b>
Brazil .....	4,593	British Honduras.....	23,699
Chili.....	2,521	Mexico .....	67,723
Peru.....	3,857	Canada .....	50,545
Venezuela .....	377	French islands.....	1,821
Argentine Republic .....	24	Hawaiian Islands.....	46,602
British Guiana.....	10,045	<b>Asia:</b>	
United States of Colombia.....	80,001	China.....	288
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<b>West Indies:</b>		Japan .....	488
Danish .....	13,968	Russia, Asiatic.....	4,868
British .....	77,696	<b>Europe:</b>	
Dutch .....	8,391	France .....	78
Haiti.....	22,848	Germany .....	334
San Domingo .....	15,258	England .....	953
Cuba .....	22,486	Scotland.....	620
Porto Rico .....	1,603		

As it is, the shoes exported differ widely in price, ranging, in 1884, from 82 cents a pair to \$2.08 a pair, the larger share, however, being a low-priced article. In this connection the following table is not without interest.

*Exports of boots and shoes (values), and average price a pair, in the year ending June 30, 1884.*

Countries.	Amount.	Average price a pair.
Hawaiian Island.....	\$92,746	\$1 90
United States of Colombia.....	88,614	1 10
Mexico.....	77,273	1 14
British West Indies.....	75,450	97
Central American States.....	43,906	1 19
Cuba.....	24,384	1 00
British Honduras.....	22,379	94
Haiti.....	21,312	97
Quebec, Ontario, Manitoba, and Northwest Territory.....	20,725	1 00
Newfoundland and Labrador.....	20,098	1 00
British Columbia.....	18,956	2 00
Nova Scotia, New Brunswick, and Prince Edward Island.....	15,054	1 21
San Domingo.....	14,907	97
Danish West Indies.....	14,107	1 01
British Guiana.....	8,254	83
Russia, Asiatic.....	6,975	97

In the light of these figures it may be doubted whether the market for American shoes can be extended in directions other than now exist. With leather, however, the case is different, for with this commodity the obstacles that have prevented its more extensive use are artificial and therefore removable.

These obstacles are mentioned in detail in the following reports, and are chiefly attributable to the methods of preparing the hides and leather for market. The hides are injured by the practice of branding; they are further injured by cutting when being removed from the body of the animal. The process of tanning is oftentimes too hastily performed and results in a faulty product; there is little selection in the hides and an uneven tannage is produced, and the use of hemlock bark produces a color which has created a prejudice against the leather, though otherwise the product may be without fault. To these faults or complaints must be added others, such as an indisposition to consult the needs of foreign markets, as where the heavy sole leather that forms the principal article of export from this country in the leather line cannot be used because of climate. The habits and business methods of merchants and the systems of credit in vogue must also be taken into consideration.

The faults complained of are not of recent origin, for they were all noted in the report of Ernest Mercier upon the exhibit of American sole leathers in the International Exposition held at Paris in 1878. That expert on leather then wrote :

America is well represented in sole leathers, tanned by three different processes—by oak bark, by a mixture of oak and hemlock barks (called “union”), and by hemlock bark.

Leather tanned by oak alone is of a fine quality, well tanned, and the hide is generally obtained from the slaughter-houses near cities, while that prepared with hemlock is generally obtained from Texas and other parts, and leaves much to be desired in the manner of flaying and branding.

The use of this leather has for some years been rapidly extending. It is exported in large quantities, and competes successfully with European leathers, if not by its quality, at least by its cheapness, in spite of the cost of transportation, of insurance, and commissions. This competition tends to increase.

This cheapness is due to the low price of raw hides and of tanning materials among the Americans. Hides are 20 per cent. cheaper, and oak and hemlock barks from 60 to 70 per cent., in the United States as compared with European prices.

Hides tanned with hemlock are of a reddish color, easily recognized; they are heavy, carrying bits of flesh, and are creased, especially on the sides. As to quality, they cannot compete with the leathers of Europe.

American sole leather has a far wider choice of markets than American shoes. The undoubted advantages possessed in an abundant supply of raw materials have enabled American tanners to produce an article

of high excellence and of low price, which has forced its way into foreign markets by its merits, and in spite of efforts to disparage and exclude it. This export trade in sole leather, now one of the most extensive in foreign commerce of the United States, is of comparatively recent growth. In 1871 the exports of sole leather amounted to only 1,900,000 pounds, of a value of \$480,543. The duty on hides was removed in the middle of 1872, and that year marks the beginning of a large export trade in leather.

The following table of leather exports will show how rapid was the change:

Years.	Quantity.	Years.	Quantity.
	<i>Pounds.</i>		<i>Pounds.</i>
1790-1800 (11 years).....	707,536	1841-1850.....	6,153,839
1801-1810 (10 years).....	2,137,766	1851-1860.....	15,851,601
1811-1820.....	2,004,445	1861-1870.....	(1)13,000,000
1821-1830.....	3,547,509	1871-1880.....	207,039,479
1831-1840.....	3,106,761		

While the exports in 1871 were only 1,900,000 pounds, in the following year they jumped to 11,102,019 pounds, and in 1876 nearly touched 32,000,000 pounds, a figure exceeded only in 1882, when they reached nearly 34,000,000 pounds. The extent of the principal markets is shown in the following table:

*Exports of sole leather in the year ending June 30, 1884.*

Countries.	Quantity.	Countries.	Quantity.
	<i>Pounds.</i>		<i>Pounds.</i>
England.....	14,907,311	British Possessions in Australia.....	42,575
Germany.....	2,598,348	Russia.....	88,996
Sweden and Norway.....	1,758,167	Cuba.....	81,321
Belgium.....	667,310	British Columbia.....	80,979
Denmark.....	553,786	Dutch West Indies.....	20,657
Newfoundland and Labrador.....	448,728	British West Indies.....	18,925
Austria.....	327,505	Italy.....	17,137
Japan.....	254,071	United States of Colombia.....	14,893
Hawaiian Islands.....	99,155	British Guiana.....	11,526
Netherlands.....	71,855		

As the domestic supply of hides and skins was insufficient to meet the demands of the leather industry, heavy importations were necessary, and the removal of the duty, small as it was, increased the opportunities for obtaining a supply from foreign ports. The value of the imports of hides, and skins other than fur-skins, since 1861, is shown in the general table, and while there was no very marked increase in the six years following 1872, an exportation of hides of no mean proportions occurred, which appears to have been impossible before that year. The countries from which the imports of hide, were chiefly made in the year 1884 is shown in the following table in the order of their importance:

*Imports of hides and skins (other than goat skins and fur-skins), during the year ending June 30, 1884:*

Countries.	Values.	Countries.	Values.
England.....	\$3,370,868	Central American States.....	554,872
Argentine Republic.....	2,257,140	Quebec, Ontario, Manitoba, and Northwest Territory.....	827,225
Uruguay.....	1,615,205	Belgium.....	264,706
United States of Colombia.....	1,227,904	China.....	234,984
Germany.....	1,121,198	British Possessions in Africa.....	144,809
France.....	929,037	French Possessions in Africa.....	134,851
Brazil.....	993,158	Ireland.....	117,636
Mexico.....	883,470	Hawaiian Islands.....	113,624
British West Indies.....	864,577	Denmark.....	106,631
Venezuela.....	660,109		



While there is little sole-leather imported, the finer qualities of leather are still obtained in large quantities from European countries and the British West Indies. The chief sources of supply and the kinds of leather furnished are shown as follows:

Value of imports of leather during the year ending June 30, 1884 :

Countries.	Bend, belting and all sole leather.	Calf-skins.	Skins for Morocco.	Upper leather of all other kinds.
France .....	\$903	\$1, 813, 563	\$281, 442	\$2, 051, 118
England .....	72, 555	31, 386	461, 756	571, 083
Germany .....	1, 016	393, 716	173, 384	841, 509
British East Indies .....			689, 333	19, 823
Austria .....			12, 336	95, 197
Belgium .....			1, 913	14, 022
China .....			9, 662	5, 407
Quebec, Ontario, Manitoba and Northwest Ter- ritory .....	98	17	6, 250	12, 081
Switzerland .....		265, 923		

The export of morocco leather of domestic manufacture appears to be diminishing, though the article is of a high quality. The exhibit of this leather at Philadelphia, in 1876, called forth the following opinion of the judges :

The exhibit of morocco and light leather was not large, but was measurably complete in its representations of the different varieties manufactured in this country. The growth of this branch of the leather industries has been very marked during the last twenty years, both in the amount produced and the skill and excellence of manufacture, which is most apparent in the production of fancy-colored morocco and sheep leather for shoes, book-binding, satchels, fancy leather-work, &c. This was illustrated by several complete and very beautiful exhibits of this class of goods, of delicate shades and colors, of all the different styles of finish, that rival and compete with even those countries which have long held pre-eminence in these departments of industry. \* \* \* The most noticeable point of merit shown in American morocco, &c., is the great care taken in the finishing processes, and the excellence attained in this respect. There is evidently more care bestowed upon the final or finishing processes than upon the earlier processes of preparing and tanning the skins; from which fact American morocco is noticeable for fineness and solidity of grain, depth and fullness of color, and clearness of gloss. (General report of the judges of Group XII.)

The decline in the value of the exports will be seen from the following statement:

Year.	Amount.	Year.	Amount.
1871.....	\$18, 690	1878.....	\$903, 968
1872.....	153, 962	1879.....	953, 188
1873.....	247, 711	1880.....	658, 242
1874.....	232, 884	1881.....	661, 019
1875.....	335, 086	1882.....	687, 626
1876.....	948, 980	1883.....	385, 825
1877.....	1, 280, 225		

There is, however, one obstacle to extending the trade in either leather or boots and shoes, which is purely of an artificial character, and yet is the most serious with which the American manufacturer has to contend. The American tanner may take the greatest possible care in the preparation of hides and skins, producing leather faultless in every respect, and the shoe manufacturer may turn out a shoe admirable in quality, and suited in every particular to the wants of the foreign market for which it may be intended. They may satisfy the needs and fancies of their customers abroad, and even offer a better article than can be supplied by the foreign shoemaker. The nearer the tanner and man



manufacturer approach to this ideal perfection the greater will be the opposition they will be forced to meet, and meet on unequal terms; for this opposition will wield an instrument against which the American manufacturer is at present powerless. Hostile tariffs, leveled directly against his wares, are obstacles which no skill of workmanship can overcome, for free competition is destroyed and improvement discouraged. So prominently did this question of tariff duties appear in the following reports of the consuls and consular officers that the scale of duties levied under the tariff laws of the different countries has in each instance been separated from the text and placed at the head of each division. American goods are excluded from Canada, from Germany, from France, and from Austria by tariffs which were framed to check the further progress of American competition, favored as it was in every natural element; and these tariffs will be altered as occasion or interest demands, until their object shall have been attained.

The testimony of the consular officers of the United States in Canada are outspoken on this subject; that of the consuls in Germany is no less so, and both clearly show that these countries will not readily yield up their home markets while they have at hand an instrument so suited to their purposes, and which has been turned against themselves in so many directions by the nation now seeking an entrance into their markets. The ease with which duties may be altered to meet the exigencies, real or supposed, of the home producer, renders them the most effective force of opposition which trade jealousy can exert, and a resort to them appears to be becoming more and more frequent, not only to give factitious advantages to home producers, but also as measures of retaliation directed against nations which have used them in the same manner.

## BARKS.

Not the least important factor in the leather industry is the supply of barks suited to tanning purposes. In Prof. C. S. Sargent's report on "The Forests of the United States" is published the following list of barks with the proportion of tannin contained in each. It should be stated, however, that these proportions do not determine the value of the barks for tanning, but indicate materials that may be looked upon as possible sources of tannin if not already so employed.

Botanical names.	Common names.	Tannin.
		<i>Per cent.</i>
<i>Gordonia lasianthus</i> .....	Loblolly bay, tan bay.....	18. 14
<i>Prosopis juliflora</i> .....	Mesquit, honey locust .....	4. 04
<i>Rhizophora mangle</i> .....	Mangrove .....	81. 04
<i>Exostemma caribæum</i> .....	.....	5. 81
<i>Quercus alba</i> .....	White oak.....	5. 90
<i>Quercus macrocarpa</i> .....	Bur oak, over cup oak.....	4. 50
<i>Quercus prinus</i> .....	Chestnut oak.....	6. 25
<i>Quercus prinoides</i> (old).....	Yellow oak .....	4. 88
<i>Quercus prinoides</i> (young).....	do .....	10. 88
<i>Quercus virens</i> .....	Live oak .....	10. 46
<i>Quercus emoryi</i> .....	Black oak .....	9. 76
<i>Quercus rubra</i> .....	Red oak, black oak .....	4. 56
<i>Quercus tinctoria</i> .....	Black oak, yellow oak .....	5. 90
<i>Quercus kelloggii</i> .....	Black oak .....	6. 76
<i>Quercus nigra</i> .....	Black oak, jack oak .....	4. 86
<i>Quercus falcata</i> .....	Spanish oak, red oak .....	8. 59
<i>Quercus densiflora</i> .....	Tanbark oak .....	16. 46
<i>Castanea vulgaris</i> .....	Chestnut .....	6. 25
<i>Picea nigra</i> .....	Black spruce.....	7. 30
<i>Picea engelmanni</i> .....	White spruce .....	12. 60 to 20. 56
<i>Tsuga canadensis</i> .....	Hemlock .....	13. 11
<i>Tsuga mertensiana</i> .....	do .....	About 15. 00
<i>Tsuga pattoniana</i> .....	.....	15. 72
<i>Pseudotsuga douglasii</i> .....	Red fir.....	13. 79

There has been quite an extensive export of tanning barks, though in recent years the exports have been made more in the form of extracts and an import trade established.

Year.	Imports.		Exports.	
	Hemlock.	Extract of hemlock.	Bark for tanning.	Extract of bark.
1875.....	\$194, 649	\$827	\$193, 938	\$1, 257
1876.....	184, 634	2, 319	223, 276	6, 223
1877.....	310, 495	8, 940	67, 176	2, 618
1878.....	412, 259	5, 244	111, 335	8, 792
1879.....	259, 363	25, 213	130, 939	82, 541
1880.....	476, 148	22, 863	210, 126	27, 856
1881.....	492, 561	4, 021	120, 426	.....
1882.....	490, 341	90, 545	97, 442	.....
1883.....	343, 559	127, 316	87, 528	.....
1884.....	406, 278	.....	*292, 851	.....
1885.....	847, 944	.....	*346, 218	.....

\* Bark and extract.

Some special reports on tannic extracts and birch oil have been added as germane to the general purpose of this issue.

In order to supplement the reports of the consuls the following tables have been prepared from the annual volumes of the Bureau of Statistics, Treasury Department. They will show the general course of the foreign trade in leather and boots and shoes during the last ten years with the principal countries buying or selling these commodities. The graphic diagram of prices is based upon the estimate annually made by the Director of the Mint.

WORTHINGTON C. FORD,  
*Chief of Bureau.*

DEPARTMENT OF STATE,  
BUREAU OF STATISTICS,  
*December, 1885.*

*Leather industry of the United States.*  
[From United States Census, 1880.]

Industry.	No. of establishments.	Capital.	Average number of hands employed.			Total amount paid in wages during the year.	Value of materials.	Value of products.
			Males above 16 years.	Females above 15 years.	Children and youths.			
Belting and hose.....	96	\$2, 748, 799	1, 138	39	50	\$606, 087	\$5, 019, 853	6, 525, 737
Boot and shoe cut stock .....	172	1, 210, 300	1, 235	1, 432	228	725, 482	5, 939, 249	7, 531, 636
Boot and shoe find- ings .....	135	770, 800	758	652	88	451, 075	1, 188, 817	2, 144, 945
Boot and shoe uppers.	81	209, 264	245	174	18	170, 425	448, 104	790, 842
Boots and shoes .....	17, 972	54, 358, 301	104, 021	25, 946	3, 852	50, 995, 144	114, 966, 575	196, 920, 481
Leather carried.....	2, 319	16, 878, 520	10, 808	77	168	4, 845, 413	59, 306, 509	71, 351, 291
Dressed skins .....	202	6, 266, 237	4, 966	208	221	2, 441, 372	11, 063, 265	15, 399, 311
Leather goods .....	57	561, 900	864	131	41	459, 318	1, 097, 373	2, 020, 343
Leather, patent and enameled .....	2	17, 100	20	2	.....	12, 800	65, 186	166, 000
Leather, tanned .....	3, 105	50, 222, 054	23, 287	188	337	9, 204, 243	85, 949, 207	113, 348, 336
Boot and shoe fac- tories* .....	1, 959	42, 994, 028	82, 547	25, 122	3, 483	43, 001, 438	102, 442, 442	166, 050, 354

\* Included also in boots and shoes.

*Statistics of the trade of the United States in hides, leather, and boots and shoes.*

## GENERAL.

Year.	Imports.			Exports.			
	Hides.	Leather of all kinds.		Hides.	Sole, upper, and all other.*	Boots and shoes.	
		Quantity.	Value.			Pairs.	Value.
		<i>Pounds.</i>			<i>Pounds.</i>		
1861.....	\$6,720,793	.....	\$1,113,093	\$673,818	.....	.....	\$779,876
1862.....	3,972,340	.....	1,080,288	518,687	.....	.....	721,241
1863.....	7,505,238	.....	1,072,178	855,855	.....	.....	1,329,009
1864.....	7,976,678	.....	1,666,626	1,192,478	.....	.....	1,415,775
1865.....	4,321,778	.....	1,104,277	1,643,631	.....	.....	2,098,166
1866.....	7,150,992	.....	4,735,502	317,741	.....	.....	590,807
1867.....	10,070,920	.....	4,939,447	286,381	462,946	313,290	681,706
1868.....	10,103,642	.....	4,604,083	538,106	.....	.....	578,650
1869.....	12,483,525	7,816,592	4,792,398	292,491	295,933	303,884	475,607
1870.....	14,402,339	.....	5,728,028	305,712	373,224	301,216	419,612
1871.....	14,892,987	8,877,448	5,994,255	700,604	1,900,044	301,216	445,466
1872.....	12,972,904	11,829,101	7,642,978	1,445,178	12,102,019	325,296	502,689
1873.....	16,248,421	10,347,669	6,766,202	3,605,023	17,241,746	260,759	421,548
1874.....	16,444,877	9,379,659	6,138,528	3,383,342	15,628,285	243,500	383,417
1875.....	18,536,902	8,847,995	5,941,238	4,729,725	24,154,193	293,051	519,920
1876.....	13,035,707	6,060,171	3,996,681	3,634,616	31,947,001	263,508	526,786
1877.....	14,963,701	7,447,423	4,589,713	3,113,883	25,122,936	300,484	414,630
1878.....	17,223,363	5,912,777	3,784,729	1,286,840	28,389,140	351,152	468,436
1879.....	15,959,017	5,948,836	3,667,564	1,171,523	28,719,623	329,355	402,557
1880.....	30,002,254	13,372,666	7,623,769	649,074	21,834,492	378,274	441,069
1881.....	27,477,019	9,133,355	5,746,349	903,464	28,690,648	300,968	374,343
1882.....	27,841,126	11,245,098	7,029,041	1,449,737	33,777,711	389,120	488,815
1883.....	27,640,030	13,142,761	8,235,053	1,220,158	28,593,894	442,687	539,967
1884.....	22,350,906	.....	7,335,116	1,304,329	22,421,293	502,122	602,926
1885.....	20,586,443	.....	3,130,474	1,822,058	27,313,766	492,906	598,151

\* Includes manufactures till year 1871.

## ARGENTINE REPUBLIC.

1875.....	\$4,126,039	.....	.....	.....	.....	.....	.....
1876.....	1,969,923	.....	.....	.....	1,009	\$257	.....
1877.....	2,071,161	.....	.....	.....	850	246	\$255
1878.....	3,380,747	644	\$429	.....	.....	.....	.....
1879.....	2,877,385	.....	.....	\$170	.....	1,398	1,906
1880.....	2,865,168	.....	.....	500	.....	83	15
1881.....	4,261,833	.....	.....	.....	.....	2,106	1,398
1882.....	2,993,807	.....	.....	.....	.....	.....	.....
1883.....	4,047,892	.....	.....	.....	.....	12	80
1884.....	2,664,037	.....	.....	77	1,000	205	47

## AUSTRIA.

1875.....	.....	617	\$411	.....	86,992	\$10,350	.....
1876.....	.....	.....	.....	.....	114,677	24,825	.....
1877.....	\$26,847	56	49	\$10,000	192,523	40,525	.....
1878.....	144	.....	.....	6,000	185,090	28,438	.....
1879.....	.....	.....	.....	.....	75,704	15,754	.....
1880.....	49,172	6,729	4,486	640	67,484	14,540	.....
1881.....	16,909	.....	.....	.....	47,718	10,830	.....
1882.....	23,685	5,230	3,593	.....	61,834	14,500	.....
1883.....	81,732	5,050	3,364	.....	.....	.....	.....
1884.....	99,202	.....	107,533	14,792	327,505	61,166	.....

## BELGIUM.

1875.....	\$54,472	68,226	\$52,960	\$511,489	1,885,425	\$596,737	.....
1876.....	155,978	11,750	13,626	403,230	3,493,404	1,121,000	.....
1877.....	518,677	5,374	7,007	46,449	1,839,757	560,890	.....
1878.....	251,164	53,055	35,839	56,171	1,070,584	291,111	.....
1879.....	269,735	108,296	63,897	15,568	1,065,586	250,340	48 \$130
1880.....	922,304	100,509	60,011	2,206	359,260	86,844	.....
1881.....	1,027,268	99,830	59,038	7,250	574,727	140,700	.....
1882.....	996,169	130,090	81,169	29,438	757,409	185,395	.....
1883.....	1,062,911	143,958	95,762	56,812	861,567	192,455	.....
1884.....	264,705	.....	15,985	26,957	667,810	148,809	.....

Statistics of the trade of the United States in hides, leather, and boots and shoes—Cont'd.

## BRAZIL.

Year.	Imports.			Exports.				
	Hides.	Leather of all kinds.		Hides.	Sole, upper, and all other.		Boots and shoes.	
		Quantity.	Value.				Pairs.	Value.
		<i>Pounds.</i>			<i>Pounds.</i>			
1875.....	\$1, 045, 494	872	\$248	\$69	6, 009	\$1, 622	3, 492	\$5, 216
1876.....	785, 729	.....	.....	.....	.....	.....	2, 088	7, 175
1877.....	1, 188, 819	195	180	.....	.....	.....	2, 938	2, 238
1878.....	1, 288, 085	.....	.....	269	917	175	10, 027	11, 816
1879.....	1, 442, 756	14, 781	9, 172	65	.....	.....	6, 388	8, 208
1880.....	2, 255, 640	110, 077	42, 066	.....	.....	.....	6, 006	6, 439
1881.....	1, 875, 008	8, 500	2, 815	1, 120	992	408	3, 689	4, 616
1882.....	1, 445, 541	100	68	546	.....	.....	2, 721	2, 778
1883.....	1, 397, 876	725	482	757	840	186	5, 184	4, 893
1884.....	893, 158	.....	.....	86	739	182	4, 593	4, 005

## CANADA.

1875.....	\$381,617	\$15,519	\$1,151	\$492,483	198,784	\$53,676	50,028	\$79,227
1876.....	520,364	45,287	10,247	234,207	242,811	63,144	48,887	75,299
1877.....	533,448	583,873	82,854	459,966	300,126	73,545	77,301	114,407
1878.....	453,845	6,284	1,418	390,347	442,189	107,050	95,233	130,303
1879.....	431,720	1,646	396	449,031	479,371	112,523	57,929	74,326
1880.....	735,939	135,932	28,161	344,106	334,467	85,666	45,034	57,047
1881.....	536,559	30,457	7,192	600,280	611,996	153,010	35,947	49,654
1882.....	463,001	38,991	9,037	811,286	943,964	253,597	69,827	83,295
1883.....	555,516	86,027	5,300	510,084	415,276	96,858	76,248	95,997
1884.....	442,276	.....	19,472	339,517	491,238	106,125	50,545	74,833

## CENTRAL AMERICAN STATES.

1875.....	\$75,307	.....	.....	.....	.....	.....	8,311	\$14,016
1876.....	83,329	.....	.....	.....	168	\$40	9,292	13,097
1877.....	43,716	.....	.....	\$311	.....	.....	11,782	16,077
1878.....	97,712	.....	.....	234	1,959	628	9,821	13,758
1879.....	80,959	.....	.....	10	883	233	8,906	10,561
1880.....	107,002	.....	.....	.....	875	309	16,135	22,874
1881.....	249,231	.....	.....	.....	541	161	15,570	20,292
1882.....	600,947	.....	.....	53	1,298	342	19,163	20,153
1883.....	597,448	19	\$18	346	2,202	562	26,453	31,224
1884.....	556,571	.....	.....	162	983	235	36,963	43,906

## CHILI.

1875.....	\$12,013	.....	.....	.....	.....	.....	78	\$220
1876.....	7,151	.....	.....	\$301	.....	.....	.....	.....
1877.....	10,921	.....	.....	.....	.....	.....	.....	.....
1878.....	10,977	.....	.....	.....	.....	.....	240	854
1879.....	19,038	.....	.....	.....	.....	.....	.....	.....
1880.....	7,216	520	\$347	.....	.....	.....	.....	.....
1881.....	9,928	.....	.....	.....	.....	.....	.....	.....
1882.....	18,116	.....	.....	.....	.....	.....	20	68
1883.....	6,573	.....	.....	.....	.....	.....	.....	.....
1884.....	34,448	.....	.....	.....	.....	.....	2,521	3,424

## CHINA.

1875.....	\$85	.....	.....	.....	5,882	\$1,595	204	\$285
1876.....	205	.....	.....	.....	2,358	967	96	100
1877.....	822	633	\$422	\$962	19,223	6,744	75	166
1878.....	5,822	11,269	7,513	.....	10,886	3,096	30	101
1879.....	13,586	1,893	1,253	.....	2,263	476	213	605
1880.....	69,700	35,285	16,771	.....	5,454	1,537	48	60
1881.....	170,483	54	35	.....	1,740	584	87	229
1882.....	26,705	275	184	.....	2,224	620	24	193
1883.....	155,563	.....	.....	.....	11,996	2,854	312	366
1884.....	239,918	.....	10,069	.....	3,244	824	288	329

Statistics of the trade of the United States in hides, leather, and boots and shoes—Cont'd.

## DENMARK.

Year.	Imports.			Exports.				
	Hides.	Leather of all kinds.		Hides.	Sole, upper, and all other.		Boots and shoes.	
		Quantity.	Value.				Pairs.	Value.
		Pounds.			Pounds.			
1875.....								
1876.....								
1877.....								
1878.....					1,868	\$512		
1879.....								
1880.....	\$31,082				20,932	5,690		
1881.....	145,483	15	\$10	\$1,360	27,619	7,217		
1882.....	142,109	190	60	1,120	786,844	183,610		
1883.....	83,672	425	278	550	1,339,202	802,673		
1884.....	106,631		15,069	5,390	553,786	121,240		

## ENGLAND.

1875.....	\$3,210,694	1,304,557	\$968,214	\$2,024,839	15,388,916	\$3,896,473		
1876.....	2,299,414	1,108,084	755,397	1,280,537	20,618,621	5,218,905	38	\$115
1877.....	2,988,186	1,199,696	778,065	1,436,849	15,718,908	3,575,241	1,153	1,756
1878.....	2,923,576	1,164,139	653,737	283,986	18,019,787	3,723,909	5,540	9,108
1879.....	2,699,184	1,563,884	775,049	133,964	18,290,481	3,536,199	1,311	1,704
1880.....	6,743,102	6,855,737	2,969,747	157,893	16,323,342	3,804,286	1,134	1,723
1881.....	4,961,095	2,594,246	1,869,088	125,459	22,573,226	5,029,366	2,200	771
1882.....	4,369,737	3,451,423	1,790,261	222,701	27,284,716	5,529,600	4,062	4,521
1883.....	4,860,422	3,643,085	1,961,683	337,713	21,332,416	4,403,586	907	1,179
1884.....	3,786,707		1,186,780	303,686	14,907,311	2,939,275	953	1,632

## FRANCE.

1875.....	\$34,707	5,787,710	\$3,862,576	\$1,200,766	7,993	\$2,750	5,229	\$11,396
1876.....	80,439	3,826,489	2,554,337	629,786	11,566	4,400		
1877.....	237,777	4,633,915	3,095,685	835,900	64,969	18,140		
1878.....	361,370	3,685,030	2,461,633	232,120	15,014	2,471		
1879.....	180,718	3,638,678	2,428,908	232,443	26,899	4,980	102	225
1880.....	1,533,921	5,101,577	3,513,960	86,187	5,131	800		
1881.....	720,673	5,138,410	3,430,313	91,781	2,358	800		
1882.....	1,052,510	5,927,855	4,019,520	225,629	853	100		
1883.....	1,260,717	6,828,225	4,506,206	129,994				
1884.....	1,057,190		4,147,026	378,930			78	112

## GERMANY.

1875.....	\$54,915	1,463,738	\$973,708	\$389,807	5,543,059	\$1,436,801		
1876.....	11,743	864,565	582,509	284,657	6,482,963	1,697,913	1,895	\$2,811
1877.....	234,153	658,708	442,568	145,674	6,120,639	1,515,938	18,938	25,797
1879.....	228,301	734,016	493,218	280,937	7,179,537	1,638,723	6,119	8,145
1878.....	125,859	487,398	324,129	250,711	7,536,200	1,630,721	1,907	1,972
1880.....	630,428	879,306	585,708	51,223	3,970,742	914,791	1,103	1,465
1881.....	580,184	922,077	653,198	62,306	3,659,991	820,925	44	65
1882.....	991,639	1,293,619	867,281	102,824	2,561,447	545,481	96	75
1883.....	1,046,908	1,644,330	1,104,909	116,016	2,481,629	522,574	53	55
1884.....	1,323,208		909,625	172,269	2,598,348	558,562	334	534

## HAWAIIAN ISLANDS.

1875.....	\$93,515			\$11	3,947	\$1,043	13,961	\$25,751
1876.....	71,996			81	6,240	1,958	14,393	24,186
1877.....	50,861			576	9,176	2,428	21,188	32,341
1878.....	78,920			760	47,038	18,830	23,550	38,416
1879.....	73,168			1,208	46,944	13,095	33,428	53,665
1880.....	68,171				37,069	10,114	26,406	53,158
1881.....	113,840				61,232	15,265	32,349	59,434
1882.....	102,089				104,581	26,221	45,784	83,796
1883.....	119,394				135,390	32,520	38,298	76,839
1884.....	113,624		\$1,056		99,155	21,624	46,602	92,746

### Statistics of the trade of the United States in hides, leather, and boots and shoes—Cont'd.

## ITALY.

Year.	Imports.			Exports.				
	Hides.	Leather of all kinds.		Hides.	Sole, upper, and all other.		Boots and shoes.	
		Quantity.	Value.				Pairs.	Value.
		<i>Pounds.</i>			<i>Pounds.</i>			
1875.....	\$3, 178	4, 577	\$1, 546	\$4, 050	1, 558	\$430		
1876.....	565			2, 104				
1877.....	679	1, 963	1, 348	12, 800	3, 310	1, 100		
1878.....	2, 280	5, 586	3, 717	700				
1879.....				600				
1880.....	65, 217	11, 709	6, 781	120				
1881.....	19, 722	3, 290	2, 217	2, 880				
1882.....	30, 937	155	106	12, 071	4, 680	1, 149	60	\$60
1883.....	21, 335			32, 284	2, 735	687		
1894.....	104, 626		2, 205	46, 239	17, 137	3, 980		

## JAPAN.

1875.....	\$1, 031	.....	.....	\$3, 909	494, 434	\$148, 002	689	\$1, 750
1876.....	240	.....	.....	270	202, 557	47, 294	1, 146	2, 532
1877.....	121	.....	.....	7, 144	325, 698.	71, 953	638	1, 262
1878.....	.....	353	\$235	22, 384	477, 320	128, 537	845	678
1879.....	2, 600	.....	.....	12, 019	239, 622	53, 233	413	855
1880.....	2, 019	.....	.....	1, 618	134, 528	83, 252	86	199
1881.....	6, 392	756	438	.....	243, 151	70, 067	1, 096	1, 292
1882.....	5, 394	.....	.....	.....	187, 987	48, 567	924	1, 490
1883.....	537	.....	.....	1, 041	203, 582	52, 145	2, 056	2, 680
1884.....	4, 636	.....	.....	498	254, 071	65, 616	488	680

**MEXICO.**

1875.....	\$2, 077, 156	11, 080	\$5, 408	\$325	260	\$97	64, 431	\$34, 128
1876.....	1, 812, 567	3, 215	1, 128	1, 856	1, 481	504	56, 690	79, 153
1877.....	1, 529, 702	2, 785	1, 284	415	4, 077	1, 675	38, 793	53, 383
1878.....	1, 565, 546	3, 281	1, 097	365	3, 755	2, 610	45, 883	60, 950
1879.....	1, 675, 777	5, 286	2, 277	1, 798	11, 609	3, 112	45, 832	58, 500
1880.....	1, 951, 918	4, 978	2, 244	875	1, 889	650	46, 623	53, 466
1881.....	2, 111, 750	3, 860	1, 331	300	340	121	38, 283	48, 307
1882.....	1, 525, 107	3, 283	1, 537	1, 463	2, 552	861	60, 610	85, 327
1883.....	1, 568, 645	1, 204	703	975	6, 618	2, 374	73, 104	86, 728
1884.....	*1, 662, 357	.....	862	776	1, 707	843	67, 723	77, 273

- Goat, \$778,887; other, \$888,470.

**NETHERLANDS.**

1875.....	\$6,390	450	\$292	\$68,602	204,591	\$56,725	.....	.....
1876.....	153	14,400	9,670	35,107	395,330	121,063	450	\$500
1877.....	126,857	1,533	1,022	9,040	194,291	64,330	2,198	2,662
1878.....	54,905	13,370	8,907	1,738	270,455	91,153	130	249
1879.....	50,934	14,610	9,735	13,658	405,893	118,289	145	250
1880.....	177,963	69,066	46,108	1,036	94,034	21,904	136	68
1881.....	268,251	22,851	16,290	693	139,378	43,808	400	400
1882.....	493,448	48,340	32,364	6,254	96,746	28,567	.....	.....
1883.....	243,548	20,385	13,724	900	134,818	40,288	.....	.....
1884.....	84,022	.....	.....	1,575	71,855	23,274	.....	.....

**PERU.**

1875.....							466	\$866
1876.....							120	250
1877.....							546	948
1878.....	\$314							
1879.....	451						51	50
1880.....	250							
1881.....	84, 330							
1882.....	286, 310							
1883.....	339, 203							
1884.....	232, 743						8, 857	2, 287



Statistics of the trade of the United States in hides, leather, and boots and shoes—Cont'd.

## SWEDEN AND NORWAY.

Year.	Imports.			Exports.			
	Hides.	Leather of all kinds.		Hides.	Sole, upper, and all other.	Boots and shoes.	
		Quantity.	Value.			Pairs.	Value.
		Pounds.			Pounds.		
1875.....							
1876.....							
1877.....		60	\$62		9,421	\$2,687	
1878.....					8,642	2,013	
1879.....					85,024	7,140	
1880.....	\$3,462						
1881.....	5,051						
1882.....	89,620				46,820	11,772	
1883.....	79,949				919,974	210,800	
1884.....	85,602				1,758,167	408,944	

## UNITED STATES OF COLOMBIA.

1875.....	\$1,323,689			\$1,010	18,422	\$5,363	11,000	\$19,450
1876.....	1,118,333	14	\$9		6,771	1,318	8,008	11,254
1877.....	1,033,079	805	162		2,153	608	15,625	24,914
1878.....	1,401,347				10,373	2,955	18,710	28,698
1879.....	1,293,353			200	8,614	2,187	35,269	40,642
1880.....	1,775,206	374	254	815	717	170	61,171	60,384
1881.....	1,512,293			26	12,388	3,285	25,411	30,064
1882.....	1,321,816	114	57	821	12,933	3,553	34,013	41,509
1883.....	1,414,683			907	18,134	4,958	52,715	57,177
1884.....	1,285,322			850	14,893	4,339	80,001	88,614

## URUGUAY.

1875.....	\$2,641,685	3,247	\$502	\$30				
1876.....	1,543,614	722	91					
1877.....	1,790,057	115	12					
1878.....	1,571,729							
1879.....	1,532,455							
1880.....	3,575,785						84	\$105
1881.....	2,960,259							
1882.....	5,088,253							
1883.....	2,716,240							
1884.....	1,615,205							

## VENEZUELA.

1875.....	\$485,129	554	\$205	\$236	1,129	\$445	7,017	\$9,707
1876.....	668,531	80	53		1,285	339	1,567	1,806
1877.....	703,694	55	42	140	407	123	424	532
1878.....	700,303			778	1,343	204	1,981	2,284
1879.....	437,227				1,845	486	136	122
1880.....	558,957			171	4,954	815	293	621
1881.....	834,441			150	4,994	1,090	178	208
1882.....	686,171			158	908	193		
1883.....	910,622				1,059	257	78	73
1884.....	1,052,978		120	333	2,910	543	377	383

## WEST INDIES.

1875.....	\$485,774	3,486	\$1,381	\$717	77,975	\$19,325	114,889	\$154,180
1876.....	802,989	1,591	1,060	1,667	74,401	18,767	107,181	135,811
1877.....	221,703	2,260	1,506	2,499	57,390	15,277	93,912	108,809
1878.....	236,825	586	187	338	329,410	69,824	94,707	165,839
1879.....	665,003	820	133	43	51,225	10,880	100,793	113,003
1880.....	1,129,844	837	558	1,193	52,755	9,337	58,990	60,503
1881.....	921,479	885	168	1,140	92,011	23,223	117,313	123,732
1882.....	942,870	420	282	3,904	127,610	33,092	116,573	121,789
1883.....	860,625	729	482	2,018	103,142	24,461	140,495	143,607
1884.....	612,298		155	2,205	92,469	21,642	180,944	176,525



Statistics of the trade of the United States in hides, leather, and boots and shoes—Cont'd.

## SWEDEN AND NORWAY.

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1880.....	\$3,462							
1881.....	5,051							
1882.....	39,620				46,820	11,772		
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1877.....	1,033,079	805	162		2,155	608	15,625	24,914
1878.....	1,401,347				10,373	2,955	18,710	28,698
1879.....	1,293,353			200	8,614	2,187	35,260	40,642
1880.....	1,775,206	374	254	815	717	170	61,171	60,384
1881.....	1,512,293			26	12,383	3,285	25,411	30,064
1882.....	1,321,816	114	57	821	12,933	3,553	34,013	41,509
1883.....	1,414,683			907	18,134	4,958	52,715	57,177
1884.....	1,285,322			850	14,893	4,339	80,001	88,614

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1878.....	1,571,729							
1879.....	1,532,455							
1880.....	3,575,785						84	\$105
1881.....	2,960,259							
1882.....	5,088,253							
1883.....	2,716,240							
1884.....	1,615,205							

## VENEZUELA.

1875.....	\$485,129	554	\$205	\$236	1,129	\$445	7,017	\$9,707
1876.....	668,531	80	53		1,285	339	1,567	1,806
1877.....	703,694	55	42	140	407	123	424	532
1878.....	700,393			778	1,343	204	1,981	2,284
1879.....	437,227				1,845	488	136	122
1880.....	558,957			171	4,954	815	295	621
1881.....	834,441			150	4,994	1,090	178	208
1882.....	686,171			158	908	193		
1883.....	910,622				1,059	257	78	73
1884.....	1,052,978		120	833	2,910	543	877	383

## WEST INDIES.

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1877.....	221,703	2,260	1,506	2,499	57,390	15,277	93,912	108,809
1878.....	236,825	586	187	338	329,410	69,824	94,707	165,839
1879.....	665,065	820	133	43	51,225	10,880	106,793	113,003
1880.....	1,129,844	837	558	1,193	52,755	9,337	58,990	60,503
1881.....	921,479	385	168	1,140	92,011	23,223	117,313	123,732
1882.....	942,870	420	282	3,904	127,610	33,092	116,573	121,789
1883.....	860,625	729	482	2,018	103,142	24,461	140,495	143,607
1884.....	612,298		155	2,205	92,469	21,642	180,944	176,525

**BRITISH AMERICA.****ONTARIO.**

Commercial Agent H. C. Buffington, Chatham, May 4, 1885.  
 Consul Harry P. Dill, Guelph, September 14, 1885.  
 Consul M. H. Twitchell, Kingston, May 7, 1885.  
 Consular Agent W. H. McCutcheon, London, May 17, 1885.  
 Commercial Agent James Redington, Morrisburg, May 7, 1885.  
 Commercial Agent R. B. Robbins, Ottawa, May 5, 1885.  
 Commercial Agent Jacob C. Dutcher, Port Hope, May 7, 1885.  
 Consul Harry L. Slaght, Prescott, July 31, 1885.  
 Consul Charles P. Wagner, Toronto, August 28, 1885.  
 Consul La Rue Peck, Fort Erie, July 1, 1885.

**QUEBEC.**

Commercial Agent Allen Fish, Saint Hyacinthe, May 28, 1885.  
 Consul George H. Holt, Gaspé Basin, May 7, 1885.  
 Vice-consul Joseph T. Woodward, Coaticook, June 6, 1885.

**NOVA SCOTIA.**

Consul-General Wakefield G. Frye, Halifax, June 4, 1885.  
 Consul Daniel K. Hobart, Windsor, September 11, 1885.

**PRINCE EDWARD ISLAND.**

Consul Henry M. Keim, Charlottetown, September 2, 1885.

**MANITOBA.**

Consul James W. Taylor, Winnipeg, May 28, 1885.

**NEWFOUNDLAND.**

Consul Thomas N. Molloy, Saint John's, May 16, 1885.

**CANADIAN TARIFF.**

Leather and manufactures of.	Per cent.
On boots, shoes, and other manufactures of leather, including gloves and mitts, and leather belting .....	25
On leather, sole, tanned, but undressed .....	10
On morocco skins, tanned, but undressed .....	10
On sole and belting leather, upper leather, including kid, lamb, sheep, and calf, tanned or dressed, colored or not colored .....	15
On glove leathers, buck, deer, and antelope, tanned or dressed, colored or not colored .....	10
On leather, as above, dressed and waxed, or glazed .....	20
On japanned, patent, or enameled leather .....	20
On Cordova leather, tanned, from horse hide, and manufactures of .....	25
On all other leather or skins, tanned, not otherwise provided for .....	20

*Imports of leather and leather manufactures into Canada from all countries and from the United States, during the fiscal year ending June 30, 1884.*

[Communicated by Commercial Agent Robbins.]

Leather and manufactures of.	From all countries.	From the United States.
Sole leather, tanned, but rough or undressed.....	\$39,971	\$8,277
Sole leather and belting leather, tanned or dressed, but not waxed or glazed....	90,873	26,350
Sole leather and belting leather, tanned or dressed, waxed or glazed.....	3,181	1,640
Upper leather, tanned or dressed, but not waxed or glazed.....	8,419	2,653
Calf, kid, lamb, and sheep skins, tanned or dressed, but not waxed or glazed...	43,965	18,395
Calf, kid, lamb, and sheep skins, dressed, and waxed or glazed.....	164,389	64,288
Cordova leather, tanned, from horse hide and manufactures of.....	793	317
Glove leathers, viz, buck, deer, and antelope, tanned or dressed, colored or not colored.....	23,296	23,277
Upper leather, dressed, or waxed or glazed.....	24,922	8,598
Japanned, patent, or enameled leather.....	17,691	16,802
Morocco skins, tanned, but rough or undressed.....	18,160	6,386
All other leather and skins, tanned, not elsewhere specified.....	214,259	95,063
Manufacture of boots and shoes.....	199,537	161,136
Harness and saddlery.....	50,892	44,986
Gloves and mitts, of kid and leather.....	344,537	31,497
Leather belting.....	36,808	36,532
All other manufactures of leather not otherwise provided for.....	162,862	71,801
<b>Total.....</b>	<b>1,448,555</b>	<b>618,107</b>

*Statement showing the provinces where the boots and shoes imported into Canada from the United States were entered during the fiscal year 1884.*

[Communicated by Commercial Agent Robbins.]

Provinces.	Number of pairs.	Value.
Ontario.....	65,698	\$57,533
Quebec.....	52,336	36,846
Nova Scotia.....	13,371	15,549
New Brunswick.....	9,622	10,470
Manitoba.....	6,401	13,601
British Columbia.....	18,158	26,940
Prince Edward Island*.....	71	145
Northwest Territories.....	48	52
<b>Total.....</b>	<b>165,698</b>	<b>161,136</b>

\* Consul Keim reports that the imports of leather and its manufactures for the year ending June 30, 1885, were \$663.

### LEATHER.

*Toronto.*—The product of all kinds of leather for the province of Ontario is estimated to average annually 5,000,000 pounds, valued at \$1,200,000. The bulk of the green hides used are obtained in Canada, but some green hides and green salted calf-skins are imported from Saint Louis and Chicago. The domestic hides are worth at the tanneries an average of 9 cents a pound; the imported skins about 13½ cents a pound. The total imports of raw skins into the port of Toronto during the six months ending June 30, 1885, were valued at \$131,078. The imports from the United States consist of union sole, pebble, and buff, kid-skins, and mock morocco; from France of French calf, French kid, and real kid, and from England of oak-tanned sole in butts and bends. The imports of leather at this port from all sources during the six months ending June 30, 1885, amounted to 107,433 pounds, valued at \$79,289.

*Ohatham.*—No tanneries in the district. Hides are salted and cured and shipped to the eastern cities of the Dominion and to the United States. There was formerly an extensive tanning interest here, but it has been abandoned in recent years. The prices of hides are governed by the fluctuations in the markets of the United States. They are at present:

Articles.	Price per pound.	Articles.	Price per pound.
	<i>Cents.</i>		<i>Cents.</i>
Prime hides.....	7	Calf-skins, green .....	9 to 11
No. 2.....	6	Calf-skins, dry.....	16 to 18
No. 3.....	5	Sheep-skins.....	75 to 90

The direct imports of leather into the district average about \$700 a year. This does not represent the actual volume of trade in American leather goods, as supplies are brought in through other cities.

*Guelph.*—Nearly every town has its local tannery. Hides and skins, other than those of domestic origin, are imported from the United States. All leather manufactured in this district is sold for home consumption, none being exported. The importations are mostly confined to American kids.

*Kingston.*—Entire output of tanneries is estimated to be \$150,000 annually. Hides are collected from the surrounding country and are worth at the tanneries 9 cents, and calf-skins 13 cents a pound, sheep-skins being from \$4 to \$5 a dozen. It is believed that the products of the tanneries in this district are all consumed here. Sole leather is obtained from other parts of the Dominion, and French and German calf and goat skins are imported from Europe via Boston.

*London.*—Output and sales amount to about \$250,000 per annum. Hides and skins are generally obtained from farmers and butchers in the city and surrounding country. Oak sole, kid, calf, and split enameled or buffing leather are imported from the United States, but in recent years the imports have largely decreased. This is especially the case with dash leather, trimming, top, winker, and collar leather, grades now produced in this country, and competing successfully with the same article from the United States.

*Morrisburg.*—There are tanneries within this commercial agency at Bells Corners, Chesterville, Aultsville, West Winchester, South Mountain, Cornwall, and Finch, all carried on cheaply, and at a very limited expense. The hides and skins are obtained from the neighboring districts. Sole leather is not manufactured at any of them, and whatever leather is manufactured is consumed in the home market. The industry is diminishing, owing to the growing scarcity of hemlock bark. There are no imports of American leather through our ports, and no person engaged in the importation of leather of any description from the United States, or who will be likely to engage therein.

*Ottawa.*—The leather industry is not extensive. The hides are mostly obtained in the vicinity of the tanneries, and the product is all consumed in Canada. Calf and kip leathers are imported from France, and a limited amount of harness leather from the United States.

*Port Hope.*—There are some six tanneries in this consular district, producing about 460 sides of heavy leather a week. Of sheep and calf skins there are only two tanneries, producing yearly about 100,000 skins. The hides are obtained from local sources, but some (the heavier



kinds) are imported from Boston and Chicago. These raw hides vary in price, according to selection, from 6 to 9½ cents a pound, calf-skins from 10 to 15 cents a pound. Nearly all the leather made is consumed in the Dominion; none is exported to the United States.

*Prescott.*—The value of the leather industry in this district is between \$150,000 and \$200,000 annually. The leather manufactured here amounts to \$75,000 a year, all of which is consumed in Canada. Some finer grades are imported from the United States, to the extent of \$9,425.

*Coaticook.*—There are no important tanneries in this district. One at Knowlton employs about forty hands, and manufactures belting chiefly. Two tanneries are in this vicinity. Hides and skins taken off here are principally exported to points of manufacture in the United States, or are sent to tanneries further inland in the Dominion, many being situated in a belt of heavy hemlock lands stretching across the country between the hilly region of the eastern townships and the Saint Lawrence River, as at Richmond, Danville, Arthabaska, &c. The trade is largely supplied by importations made through other cities of Canada, small amounts only entering at Stanstead and Coaticook.

The following table gives the total direct imports for eleven years at the places named :

Year.	Stanstead.		Coaticook.	
	Boots and shoes.	Leather.	Boots and shoes.	Leather.
1874.....	\$598	\$525	\$407	\$2,807
1875.....	1,041	534	288	947
1876.....	563	401	200	196
1877.....	431	437	174	.....
1878.....	601	319	144	.....
1879.....	500	255	6	73
1880.....	710	287	108	27
1881.....	Nil.	290	18	51
1882.....	763	194	8	.....
1883.....	885	263	96	63
1884.....	396	230	498	70
Total.....	6,483	3,785	1,437	4,234

*Saint Hyacinthe.*—About 1,000 sides of upper and 9,000 sides of sole leather are made weekly in this district; little or no fine grades of leather are manufactured. The output is consumed in Canada, Newfoundland, England, and the Continent. Green salted hides for making upper leather are obtained from the province of Ontario and from Chicago—about one-half of the supply from each place—and cost at the tanneries 8 to 9 cents a pound. Dry hides for sole leather are obtained mostly from South America, East Indies, China, and lately a considerable part from Texas, and cost at the tanneries 10 to 24 cents, according to quality.

*Fort Erie.*—There are no tanneries or boot and shoe factories in this district. The retail dealers are supplied from Hamilton and Toronto. The records of the custom-house at this port show no importations of leather goods from any country.

*Gaspé Basin.*—There are no manufacturing industries in this consular district, the stocks needed being supplied from Montreal and Quebec. Nothing is imported from the United States.

*Saint John's, Newfoundland.*—There are three small tanneries on this island, but none of any extent, leather and all kinds of materials for tanning and the manufacture of boots and shoes being imported gener-

erally from the United States, and also from Canada. There are three small boot and shoe factories, which appear to have plenty of work.

*Charlottetown.*—Several small island tanneries supply nearly all the leather used here, and ship the surplus mostly to Montreal and Quebec, some to Newfoundland. The hides are obtained in the Province; the importation of French calf and English kip is exceedingly small.

*Windsor, Nova Scotia.*—Although there are considerable capital and labor employed in this industry, it is entirely local, as very few raw hides are imported and a very small amount of leather either imported or exported. Almost the entire output from the tanneries is used locally. The cost of hides for sole and light leather ranges from 6 to 7 cents a pound at the tanneries; calf-skins from 30 cents to \$1 each, according to size and quality; manufactured leather from 25 to 30 cents a pound.

*Halifax.*—The greater part of the sole leather used in Nova Scotia is manufactured in the Province. Upper and polished leathers are manufactured to a limited extent only, the most of it being produced in Ontario. It is estimated that the value of the leather production of Nova Scotia is somewhat over \$500,000 per year. The largest tannery is at Pictou, known as the Logan tannery. I am informed by one of the company that it turns out an average of 1,000 sides per week. Sole leather only is produced. The McGregor tannery at New Glasgow manufactures about 900 sides per month, and Farquhar, Forest & Co., of Halifax, produce about the same amount.

A tannery went into operation at Windsor last year, but I am unable to give the extent of its production.

At Amherst, C. R. Casey & Sons manufacture upper leather, polished leather, and an oil-tanned leather, used specially for moccasins. There are several other small tanneries in different parts of the Province.

Domestic hides are principally used, and are purchased at from 6½ to 8 cents per pound. Dry South American hides are occasionally brought here from New York or Boston, costing from 21 to 26 cents per pound. Also some West India hides, wet salted, which cost from 12 to 15 cents. Chicago hides cost from 8 to 9 cents.

*Winnipeg.*—The leather industry is confined to the primitive methods, by which the native population of Indians and Metis (the latter vulgarly called "half-breeds") produce a soft and pliable leather from the skins of moose and deer, as formerly of buffalo.

The hair and muscles are removed by friction with sharpened bones; the skins, repeatedly steeped in water mixed with the animal's brains, are reduced to a soft texture by kneading and similar manipulations, and often softened and relieved of moisture by exposure to frost. Before steeping, the hides, denuded of hair and flesh, are often cut into strips, called *Shagganappi*, which are generally used for cordage, and become very strong and hard after being wet and dried. The leather is smoked only to retain its softness under all circumstances of exposure to moisture.

Tanneries as existing in the United States and Eastern Canada have not been established.

#### TANNING MATERIALS.

Hemlock\* and oak tan are chiefly used and are exclusively of domestic production. Consul Dill and Commercial Agent Dutcher report that the sumac used is brought from the United States, but Consul Wagner writes: "Some sumac is also used and is obtained from Sicily.

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\*Hemlock bark is forwarded in large quantities to the tanneries about Boston, and being principally produced beyond Sherbrooke, is certificated there. Formerly about \$100,000 in value of bark was certificated here annually. (Vice-Consul Woodward, Coaticook.)

Hemlock bark is used for tanning; it is not considered here as good as oak bark,

No American sumac is used by Canadian tanneries." Consul Twitchell (Kingston) says the supply of hemlock bark "is limited and gradually becoming more difficult to procure."

#### AMERICAN LEATHER.

*Toronto.*—There is no fault to be found with American leather; it suits the market and compares most favorably with the manufactures of other countries.\* One of the leading dealers here in fine shoes informs me he is using American kid to the entire exclusion of both French and English kids, finding it a far better article.

*Chatham.*—The better grades of American leather are preferred to the home product; but dealers inform me that in the common grades American tanners hurry the process too much and thereby injure the wearing qualities and pliability of the product. The same objection is urged against the cheaper grades of Canadian leather. American oak-tanned belting is considered a superior article. In fancy goods, into which leather enters largely, such as satchels, purses, pocket-books, &c., American leathers seem to be in general favor.

*Kingston.*—I find the most encouragement in the fine quality of American calf-skins, which are admitted to be better than the Canadian and can to some extent take the place of the European calf.

*London.*—American leather of all grades compares favorably with English, French, and Canadian goods, especially so far as the care and labor bestowed upon the manufacture is concerned. But complaint is made that American hides are not selected with as much care, neither are they seasoned as well, as those of other countries.

*Ottawa.*—American leather compares favorably with that of other countries. It is not regarded so good as that obtained from France, but it is equal in quality to that of any other country and is better than the Canadian. There are no faults found with it.

*Port Hope.*—American leather compares most favorably with that of other countries, and is, in fact, considered among the very best in the Canadian market. There are none or very few who import it from the United States, as by reason of the duty the domestic article may be bought more cheaply.

*Coaticook.*—No special fault is found with the leather or manufactures of leather of the United States; on the contrary, the material and workmanship elicit much praise for durability and general excellence of finish and style.

*Windsor, Nova Scotia.*—American leather compares very favorably with the manufactured leather of this district, and would be largely imported were it not for the duty.

*Halifax.*—American leather compares favorably with that manufactured in Canada, but is not as good as the English. Dealers say they cannot pay the duty and compete with domestic producers.

*Winnipeg.*—As late as 1879 the exports of leather and its manufactures from the United States to this district only amounted to \$1,757, which in five years have increased to \$32,690 for the year ending June 30, 1884.

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but the oak in the island has nearly become extinct, and no bark is imported. (Consul Keim, Charlottetown.)

Hemlock bark is used exclusively, being obtained from the Nova Scotian forests. No inconsiderable amount of bark is cured and exported to the United States. The cost of bark at tanneries and shipping points is about \$4 a cord. When carefully cured and piled in the months of July and August, it is of a superior quality. (Consul Hobart, Windsor, N. S.)

\*This is the opinion expressed in the reports from Guelph and Prescott.

A detailed statement of last year's shoe and leather importations at Winnipeg is as follows:

Articles.	Value.	Whence imported.	
		United States.	Great Britain.
Boots and shoes .....	\$14, 252	\$13, 474	\$763
Harness and saddlery .....	6, 483	5, 492	991
Gloves and mitts .....	14, 949	11, 088	3, 861
Belting .....	1, 069	1, 069	-----
Other manufactures .....	2, 792	1, 442	684
Leather .....	286	125	161

The importations of leather and manufactures of leather from Eastern Canada (being free of duty and mostly passing through the United States in bond) were \$223,177 for the years 1883-'84.

There is a very considerable importation of gloves and mitts from the United States, invoice values \$11,188, seven-eighths of which are buck-skin gloves, manufactured in New York, while the importation of gloves from Great Britain (\$3,861) is almost exclusively kid gloves.

The production of hides in the Canadian district of Alberta, north of Montana, promises to become more important than the trade in buffalo robes and skins formerly was.

#### ENLARGING TRADE IN AMERICAN LEATHER.

*Chatham.*—While the tariff remains as it is the very finest American leather goods are the only grades which importers will find profitable, the duty frequently making the Canadian article the cheaper.

*Kingston.*—The tariff must be overcome by our leather dealers to reach this market.

*Ottawa.*—The duties alone prevent its increased importation.

*Prescott.*—The only impediment to a liberal import of leather is the high duty.

*London.*—With the exception of French calf the American manufacturer has only to meet the competition of the Canadian; but unless American leather can be placed upon the Canadian market so as to compete with the Canadian article, both as to quality and price, it is difficult to see how the trade can be enlarged.

In regard to Manitoba and the districts of Assiniboia, Alberta, Saskatchewan, and Athabasca, constituting Central Canada, I cannot better illustrate their capacity for the development of the shoe and leather trade, as well as other departments of industry and enterprise, than to state that their area is fully equal to the States of Michigan, Wisconsin, Minnesota, Dakota, and Montana, as their resources will be when their population shall advance from 250,000, as at present, to the 4,000,000 returned by the census of 1880 in the American communities above mentioned.

*Port Hope.*—When asked the best means for the introduction and enlargement of trade in American leather, the prompt response was, "There is one means by which American leather would be largely imported into the Dominion—reciprocity."

*Gaspé Basin.*—Until American manufacturers can compete with Canadian in prices they cannot find a market here.

*Winnipeg.*—With free trade the Manitoba market would be almost exclusively supplied from the United States. That is generally admitted.

#### BOOTS AND SHOES.

*Toronto.*—The factory system of boot and shoe making is carried on to a very large extent in this consular district, there being in the city of Toronto alone five factories, which turn out goods to the amount of \$1,500,000 annually. These factories use machinery almost entirely, and most of it comes from Boston.

*London.*—There is but one boot and shoe factory in this district, employing about 50 hands and producing annually goods to the value of \$175,000. Machinery is also used to a considerable extent.

*Coaticook.*—Two boot and shoe factories are at Rock Island, employing about 25 hands each, and having an annual output of about 15,000 pairs of boots and some shoes, hand-made and heavy work. In the manufactories American machinery is used as in other branches, and not seldom American workmen are found either in Canadian shops or in branch establishments of American firms, who by manufacturing here escape duty.

*Charlottetown.*—There is but one shoe factory, that of Dorsey, Goff & Co., in this Province, employing about 40 hands; about \$3,000 worth of machinery is used.

In Chatham, Guelph, Kingston, Morrisburg, Ottawa, Port Hope, Fort Erie, Gaspé Basin, and Prescott no factories exist, and no machinery, other than the sewing-machine, is used. Ready-made shoes are obtained from other parts of the Dominion or from the United States.

The styles of boots and shoes worn by Canadians are similar to those worn in the United States. Long boots are but little used in Ottawa; in Gaspé Basin a shoe suitable for the use of people engaged in fisheries is needed. The long severe winters of Prince Edward Island make necessary heavy pegged wear, with large ball, wide center, and pointed toe.

*Halifax.*—The factory system is not extensively carried on in Nova Scotia. Not many boots and shoes are sent out of the Province. Nearly all, however, are manufactured by machinery, and I learn that the machinery is for the most part of American manufacture. One factory in Halifax employs about 160 hands, and turns out 4,000 pairs of boots per week. The value of its yearly production is \$180,000. Another firm manufactures 600 pairs per week, equal to \$50,000 in value per year.

The class and styles of boots and shoes do not differ essentially from those worn in the Eastern States, except that I think strong medium class work is more in demand here than there.

Ladies' boots here are rather stouter, with thicker soles. I think the same is true of misses' boots. American styles are followed more than the English; American lasts, or Canadian lasts made after the American pattern, are generally used.

*Saint Hyacinthe.*—The factory system of shoe making is much the same as in the United States—very extensive and perfect. Machinery is used in manufacturing to the full extent. The boots and shoes made in this district are medium grades; patterns mostly from the United States. The fine grades worn here are mostly purchased in Montreal. The output is used in Canada. Little or no importations into this district.



## AMERICAN SHOES AND LEATHER GOODS.

**Chatham.**—Mr. Napoleon Tetreault, one of the largest dealers here, and the only local importer of shoes, says that in the fine grades of boots and shoes the American-made goods are much superior to the home product in style, workmanship, and finish, and that on that account are growing in popularity. In spite of the duty he is able to sell them at such prices as to compare favorably with Canadian-made goods. In the lower grades he does not think the American goods can compete, duty considered; for, while more care is bestowed on the fine product than by Canadian makers, the conditions are reversed in the case of heavy goods. In leather fancy goods there is a small trade done here with Detroit, and I am led to believe that local dealers are almost entirely supplied from that place.

**Guelph.**—All dealers unite in praising American boots and shoes—in fact, there is no fault found with them, as they are of nicer finish, better style, and more pleasing to their customers than Canadian goods.

**Kingston.**—The dealers would prefer to handle American boots and shoes, on account of their neatness and superior finish. Fastidious customers compel them to handle at present a limited quantity.

**London.**—The finer grades of boots and shoes manufactured in the United States are much sought after in the Canadian market. The style and finish of these goods are much superior to the Canadian articles.

**Morrisburg.**—There are no boots or shoes imported from the United States registered at the custom-house in Morrisburg. The idea prevails to some extent among the females and others of the population that ladies' wear of American make are better in style and will endure longer service. From inquiry I find that heretofore the American manufacture seems to have the preference, but more recently it is contended by dealers in the shoe trade that Canadian manufacture, especially in Western Canada, fully equals the American.

**Ottawa.**—There are but very few boots and shoes imported into this district, as the trade is supplied by Canadian manufacturers, who have a very decided advantage over foreign makers by reason of the tariff duty. American goods stand at the head of all competitors so far as style and finish are concerned, and the sale of the better grade of American goods in Canada would be extensive but for the duty imposed. There is no fault found with American goods or with the packing of the same.

**Port Hope.**—One of the most reliable dealers in boots and shoes said to me, "While American boots and shoes deservedly stand high in our market and are much sought after, and while we are anxious to import largely from the United States, we cannot do it because of the excessive duty."

**Halifax.**—I have no doubt that American boots and shoes would suit the market if dealers could profitably import them and pay the duty. But the duty on boots and shoes is 25 per cent. Canadians have learned to manufacture their own boots and shoes for the most part. Labor is somewhat cheaper here than in the United States, and so long as Canadian manufacturers are protected by the present Canadian tariff, which applies alike to the manufacturers of all countries, I see little prospect of enlarging American trade in boots, shoes, or leather in these provinces, gratifying as it would be to see it otherwise.

**Prescott.**—No fault found with American shoes, which suit the market well.

**Toronto** reports the same.



## EXTENDING TRADE AND PACKING.

All agree that the high duties of the tariff prevent an extension of the trade in American leather goods, except as regards the finer articles. Consul Dill writes :

For the best means of introduction into this market, many suggestions are given. Reciprocity is one ; another is that only first-class goods should be sent, as the trade has been injured by dealers buying in the markets of the United States job lots of out-of-style goods, seconds, &c. From observation I think that American manufacturers or wholesale dealers, by sending their agents throughout Canada, can soon have their goods on sale in every shoe store.

*Kingston.*—With the best American calf-skins and the finer qualities of boots and shoes our manufacturers would need to overcome but a small percentage of the duty to place them on this market. This can best be accomplished by an active agent from American houses.

*London.*—As dealers in leather goods in this place may be named Messrs. Alex. Johnston & Co. (boot and shoe leather) and T. H. Marsh (saddlery and carriage leather).

*Ottawa.*—The only importer in the city is Mr. A. J. Stephens.

*Port Hope.*—Boots and shoes, I am informed, should be given to traveling salesmen who dispose of them from place to place by sample, or enter into arrangements with some regular dealer. The articles should be packed in cases and sent by steamer across the lake from Charlotte or by rail. Philp Brothers, Reading & Co., of Port Hope, Deering & Son, of Coburg, and Stinson & Son, of Peterboro', are among the principal traders in leather and leather goods.

*Prescott.*—A. Jordan, of Prescott, is a dealer in boots and shoes.

*Toronto.*—Nothing can be said in regard to improving the packing and shipping of American goods for the Canadian market, as dealers here say the packing is as good as it can be. Probably the best means for the enlargement of the American trade in both leather and shoes, would be for some good American house to open a branch house here, for the exclusive sale of their goods. The following are large dealers in and importers of American shoes in this place: Cooper & Smith, J. D. King & Co., W. B. Hamilton, Charlesworth & Co., and Dauer & Co.

*Coaticook.*—Not one of the ports of entry in this consular district has sufficient trade to warrant the establishment of an importing house as a distributing point. Sherbrooke would be a suitable place for distribution to accommodate the retail trade of this district. At present dealers purchase mostly from Montreal, or from representative of American houses, who occasionally visit them, and sometimes order direct by letter.

*Charlottetown.*—The best means for introducing American leather and goods is by well-stocked agents, representing reliable houses. The names of persons likely to engage in importing American leather are: Donald McKinnin, Dorsey, Goff & Co., and William Boyl, all of Charlottetown. Boots and shoes: Dorsey, Goff & Co. and C. B. Warren. I am of opinion that small as the consumption appears to be, by intelligent exertion by far the larger portion of the trade can be secured to our country.

*Windsor, Nova Scotia.*—Importers of American leather, other than sole: At Yarmouth, H. H. Crosby & Co., W. H. Ridding, and Spinney, Eakins & Co.; at Amherst, Amherst Boot and Shoe Manufacturing Company, manufacturers of leather; at Yarmouth, G. Robbins and H. H. Crosby & Co.; at Windsor, Windsor Tanning Company; and at Amherst, the Amherst Steam Tannery, owned by C. R. Casey & Son. This establish-

ment uses 400 cords of bark annually. Manufacturers of boots and shoes: at Yarmouth, H. H. Crosby & Co., W. H. Ridding, and R. K. Rose; at Amherst, Amherst Boot and Shoe Manufacturing Company. Importers of American goods are: at Yarmouth, W. H. Miller, W. H. Doane, and H. Crowell; at Windsor, A. P. Shaud & Co. and C. Henry Dimock.

*Winnipeg.*—Importers of leather and its manufactures, especially boots and shoes, are: Hudson Bay Company, Thomas Ryan, Kilgour, Rimer & Co., E. T. Hutchins, William Wellband, Ames, Holden & Co., W. D. Blackford & Bro., B. D. Deeming.

## QUEBEC.

### REPORT OF CONSUL WASSON.

#### THE TANNING INTEREST.

The leather industry is not apparently so prosperous as formerly, being affected by the general depression in trade, but its condition may be said to be healthy.

There are twenty tanneries in the district of Quebec, with an annual production valued at \$7,500,000.

The hides and skins are principally obtained in the Dominion of Canada and the United States. The total value of hides and skins imported from all other countries being \$46,118.

Green salted cattle hides cost from 8 to 10 cents per pound, calfskins from 14 to 16 cents per pound, and sheep pelts 75 cents each.

Hemlock bark and hemlock extract obtained in Canada are the chief materials used in tanning. Vitriol is also used to some extent.

There are about 250,000 green salted hides and skins tanned and dressed annually in this district, and the output is principally consumed here.

#### IMPORTS AND EXPORTS OF LEATHER.

In the year ending June 30, 1884, the value of leather exported from the port of Quebec was \$207,116 to the following countries, to wit: \$186,416 to Great Britain, \$19,256 to Newfoundland, \$1,127 to St. Pierre Miquelon, \$169 to Labrador, and \$148 to the British West Indies.

The total value of leather imported into this district during the last fiscal year was \$70,707, consisting of waxed, kip, uppers, goat, French calf, glazed kids, and moroccas, and a small quantity of English oak sole (bends).

The value of leather imported from the United States during said year was \$10,188, consisting chiefly of glazed and polished leather, or what is called bright stock, which is said to have come in competition with French leather and to have generally taken its place.

#### AMERICAN LEATHER.

American leather compares favorably with the manufactures of other countries, and is admitted to be superior to the local production. English oak sole is held to be superior to American, but little of either, however, is used, the cheaper home article and tariff duties precluding their importation almost entirely.

American leather would suit the market well if it could be sold as cheaply as the home product.

One manufacturer whom I consulted with regard to the boot and shoe trade, speaking of the quality of American leather, said it was of better tannage and finish than that produced and generally used here. Shoemakers, he said, preferred English sole to American because it is better trimmed, and hence there is less waste in cutting. With this exception I have heard no fault found with American leather.

#### ENLARGING THE MARKET.

If American leather could be imported and sold at the same price as the local output, there would be but slight difficulty in enlarging the trade. Tariff duties and cheap labor give local producers such immense advantage that I am at a loss to suggest any means of overcoming it. In the lines imported—sufficient for the local demand not being produced here—the trade of the United States might be increased by more energetic competition, and perhaps by giving longer credits, English dealers usually giving from four to six months' credit.

#### DEALERS IN LEATHER, ETC.

Boot and shoe manufacturers (wholesale) as a rule either make their orders direct or through an agent at Montreal. Tanners also sometimes supplement their stock by importation. The following is a list of the boot and shoe manufacturers and tanners with whom American dealers may correspond and rely upon as trustworthy.

*Boot and shoe manufacturers.*—Octave Migner, J. H. Botterell & Co., G. Bresse, John Ritchie, Marsh & Polly, James E. Woodley, St. Pierre & Clapin, Henry Griffiths, and Quebec Shoe Company.

*Tanners.*—J. Louis & Sons, Fallardeau & Paquet, G. Rochette, O. Rochette, F. Gourdeau, A. Germain & Brother, Elie Turgeon, H. Samson, Julien & Guay, O. Polequin, Blondeau & Gravel, George Roy, P. Dugal, A. Pion & Co., and Hua, Richardson & Co.

O. L. Richardson & Sons, being the only dealers in leather and furnishings and not at the same time tanners or manufacturers of boots and shoes, is also a reliable firm.

The terms of the trade are generally on a credit of four to six months, according to the rule so largely obtaining in Great Britain. But dealers inform me that competition has become so close lately that transactions are frequently made at fifteen days' sight, which is practically cash.

#### BOOTS AND SHOES.

There are fifteen factories, employing some 2,500 persons, with an annual output valued at \$2,500,000.

In nine of these machinery is used to about the same extent as in the larger American factories.

The Quebec trade is termed medium class. Very few long boots are made or worn, except for riding or hunting. The bulk of the lines are in women's, misses, and children's pebble and buff goods, India kid, goat-skin, calf, French kids, and split goods. In men's work, men's buff, split, calf, cordovan, and grain, Balmoral gaiters, and shoes. These are made in pegged, machine-sewed, riveted, a few hand-made sewed, and a few Goodyear welted work. The small proportion of long boots is in split, kip, and grain.

Lasts are pretty much the same as used in the United States, the measurements being a shade fuller. They never go to extremes in fashion in shapes.

New patterns in the United States are generally adopted in a somewhat modified form.

The output of this district is consumed in the Dominion of Canada and Newfoundland. The total export elsewhere does not exceed \$5,000 annually.

#### IMPORT OF BOOTS AND SHOES.

The total import of boots and shoes at Quebec during the last fiscal year was valued at \$927, to wit: 444 pairs from Great Britain, valued at \$468; 328 pairs from the United States, valued at \$437; and 14 pairs from France valued at \$22.

The 328 pairs classed as boots and shoes imported from the United States during the last fiscal year, as above stated, consisted of a few in very fine lines of ladies' boots, and ladies' and children's shoes and slippers. They are finer in finish and style than any others in the market, and suit the market well.

There is no fault found with American boots and shoes except the price.

#### IMPORTERS OF BOOTS AND SHOES.

The following dealers in boots and shoes in the city of Quebec are trustworthy business men, and are recommended to American houses seeking to extend their trade here, viz:

William Jacques, Thomas Mahony, Louis Bilodeau, Isaac P. Bowin, Joseph Gilbert, A. J. Caron, Thomas Bedard, and Horace Grenier.

#### MISCELLANEOUS.

In the foregoing statements in regard to the leather industry I have confined myself strictly to this consular district. It may not, however, be improper for me to state that there are two large tanneries engaged exclusively in the production of sole leather whose proprietors reside in Quebec, and whose output is largely consumed by the boot and shoe manufacturers here. One is located in Arthabasca—the other in War-rick. They use principally dry hides from Central and South America, shipped as a rule by way of New York. Their cost at the tanneries can be determined at any time by adding to the New York prices  $\frac{1}{2}$  cent per pound for freight.

The total output of these tanneries is placed at \$450,000.

JNO. N. WASSON,  
*Consul.*

UNITED STATES CONSULATE,  
*Quebec, June 2, 1885.*

CENTRAL AMERICA.  
MEXICO.

Consul-General David H. Strother, Mexico.  
Consul-General Warner P. Sutton, Matamoros.  
Vice-Consul Charles Winslow, Guerrero.  
Consul John A. Sutter, Jr., Acapulco.  
Consul James Viosca, La Paz.  
Consul Robert C. Campbell, Monterey.  
Consul Edward H. Thompson, Merida.

TARIFF.

Number.	Article.	Weight, measure, or number.	Rate of duty.
IMPORT DUTIES.			
483 (486)	Boots and half-boots of cowhide.....pairs..		\$1 50
484 (487)	Boots and half-boots of calf-skin or patent leather.....do...		2 50
488 (488)	Gaiters of leather or cloth.....do...		90
489 (489)	Gaiters of silk, with or without elastic and ornaments.....do...		1 25
500 (483)	Slippers or low shoes of leather or other material, which do not contain silk or metal.....pairs..		40
497 (501)	Shoes, low, of leather or material other than silk, with or without adornments.....pairs..		45
498 (502)	Shoes, low, of silk, with or without ornaments.....do...		80
501 (491)	Uppers for slippers of leather or cloth which do not contain silk or metal.....net weight..	Kilogram	75
502 (492)	Uppers for gaiters unsoled, of leather or cloth, other than silk, with or without ornaments.....net weight..	do	2 30
496 (481)	Saddles of all classes, with or without ornaments, not of gold or silver.....net weight..	do	2 00
485 (490)	Bridles with reins of leather or any other material..gross weight..	do	65
498 (496)	Harness for carriages.....do...	do	1 50
282 (500)	Blinders of leather.....do...	do	30
487 (485)	Calf-skins, patent-leather, kid, chamois, and other prepared skins.....net weight..		1 55
494 (482)	Leather, manufactures of, not specified..gross weight..	Kilogram	60
481 (484)	Bands (belting) of leather, when they do not come attached to any machinery forming a part of it.....gross weight..	do	50

The duty on a pair of cowhide boots is \$1.50, Mexican money, to which must be added the heavy expenses of stamps, brokerage, &c., enough to bring it all to \$1.50, American money, per pair, or, more or less, 100 per cent. on the cost price.

By going through the list it will be seen that native leather and its manufactures are well protected by the Mexican tariff. As these duties are not likely to be materially reduced it will take pretty sharp competition to gain much trade outside the Zona Libre. (For law of Zona Libre see proper heading in No. 52½ for May, 1885, of United States Consular Reports.)

[Consul Campbell reports that Monterey imposes a municipal duty of 3 cents on every 25 Mexican pounds in addition to the import duty.]

MEXICO.

REPORT OF CONSUL-GENERAL STROTHER.

LEATHER AND ITS USES IN MEXICO.

With a climate singularly mild and equable, with extensive tracts of natural pasturage, varied, abundant, and perennial, with a soil which in response to the most primitive and careless cultivation produces crops



of succulent grasses and nourishing cereals in uninterrupted succession, there is perhaps no country in the world which combines so many favorable conditions for stock-raising as the Republic of Mexico, and, as a natural consequence, this has always been the principal occupation of her rural population. Her stock of domestic animals, horses, asses, neat cattle, sheep, goats, and hogs, originally introduced from Spain, and mixed by occasional and limited importations from other sources, has greatly prospered and multiplied, and is at this day one of the most important items in the reckoning of the national wealth. The hides of these animals, healthy and of superior quality, together with the pelts of the red deer, cougar, leopard, mountain cat, wolf, fox, bear, and other natives of the Mexican forests, furnish abundant material for domestic uses and manufactures, and supply a foreign export trade, amounting to four or five millions of dollars annually.

The uses of hides and leather, both in their primitive and manufactured state, are much more varied and general among the Mexicans than is usual in the United States. Raw hides stretched on frames are used as vats in which the national beverage "pulque" is fermented. The skins of goats and sheep supply the place of kegs and bottles for carrying or preserving pulque and other liquors. Besides its extensive use in the manufacture of gearing, saddles, and horse furniture, a considerable proportion of the rural population is clothed completely or partially in leather. Large bodies of the national and State troops are uniformed in soft-tanned calf or buck skin. In brief, on account of their abundance and cheapness, Mexicans still continue the primitive uses of skins and leather in a great variety of ways, which among natives less lavishly supplied or more advanced in arts and manufactures, would be considered costly and inconvenient.

#### TANNING IN MEXICO.

The Mexicans have inherited their knowledge of tanning from the most famous school in Christendom, that of Cordova, in Spain, and their processes do not differ materially from those in use elsewhere. Mexican tan-yards, however, are far more costly and substantial works than the similar establishments generally seen in the North. The inclosing walls are of massive masonry, the rooms and courts paved with heavy flagging, the vats, troughs, and liquor ducts built of hewn stone and hydraulic cement.

The hides are first submitted to a bath of strong lime-water; the hair removed, they are then soaked in a mixture of bran and water to remove the lime. They are then sunk in vats filled with a strong solution of tannin, where they remain ten days; they are then taken out, dressed with neat's-foot oil, and, if required, colored with a black obtained from the smoke of the "ocote," a kind of resinous pine, or with a preparation of iron. The whole process requires but twenty-six days, and the leather produced is excellent both in quality and appearance. An American expert in tanning who had visited this country with a view to establishing himself in the business, told me that the average Mexican leather was quite equal in quality to that produced in the United States.

The Mexicans get their tannin from red-oak bark and other preparations, when their main reliance is not conveniently attainable, but their usual and most esteemed tannin is obtained from the cascalote, a sort of bean, the fruit of a tree of the acacia species, which grows in great profusion in the hot regions on both coasts, but flourishes especially in the States of Michoacan and Guerrero on the Pacific side. The casca-



lote is ground like bark in a stone-wheel mill, and its extract makes better leather in less time than any other substance known. In addition to the solid stock used in the manufacture of boots and shoes, saddles, gearing for horses and machinery, trunks, mail-bags, &c., the Mexican tanners produce a great variety of ornamental and fancy leathers in colors, japanned, chagrin, bronzed, gilt, silvered, and stamped, used in the manufacture of ladies' and children's shoes, embroidered clothing, gloves, boxes, satchels, book-binding, portfolios, pocket-books, and numerous other articles of use or fancy. In fact all the varieties and branches of leather manufacture are well advanced in this country, and some of them exhibit a degree of elegance and luxury seldom seen elsewhere. It is not uncommon to see embroidered leather suits costing from \$100 to \$200, and saddles with furniture priced at from \$500 to \$2,000.

#### PRODUCTION AND CONSUMPTION OF LEATHER IN MEXICO.

Owing to the imperfect organization of labor in this country and the general reticence of manufacturers and tradesmen in regard to their business, it is scarcely possible to obtain any reliable statistics in regard to the cost or the amount of production. There are numerous tanneries and workers in leather in every city, town, and district, but in this as in other industries a very large proportion of the aggregate production is the result of individual labor outside of the organized factories and shops. In the city of Mexico there are thirteen principal tanneries reported, and there may be others of less note carried on by individuals privately. At one of these establishments I was informed that their average product was a thousand finished hides a month.

It may be said generally of Mexico that the production and consumption of leather is very great, and that the facilities for its production and manufacture are at present quite equal to the requirements of the country. There is none exported, and but for the demands of fashion or fancy there would seem to be no necessity for importations. A very limited amount of French and English leathers, in hides and manufactured, figure among the imports of the country, but the Mexicans claim that they can produce leather similar in appearance and equal in all respects, and sell it much cheaper. I have been assured by uninterested experts that many of the high-priced shoes and other articles sold here as made of French or English leather are in reality the product of Mexican art and industry.

In this as in other industries of general necessity the tendency of difficult and costly transportation, of internal customs and vexatious discriminations between adjoining States, has been to localize the trades and to disseminate production and manufactories all over the Republic, each State capital or district town or important mining or agricultural hacienda or independent Indian village having its local establishment to supply the neighborhood demand; nevertheless the federal capital, as the recognized center of fashion and the arts, commands a considerable internal trade with the States in articles of leather.

#### SHOES AND SHOE-WEARING IN MEXICO.

Shoes in Mexico are a European introduction, and do not properly belong to the national costume. A large proportion of the population (probably a majority) do not wear shoes at all, and there would seem to be no reason why they should ever adopt them. The ancient Indian

sandal, which is a sole of leather, raw-hide, or woven maguey fiber, strapped to the bottom of the foot with strings of the same material, is the only foot covering used by this class of people, and as every man is his own shoemaker, and the climate requires no protection for instep or ankle, the national sandal is doubtless the most economical, comfortable, and healthy shoeing that can be worn in this country. In proof of this, the infantry regiments of the Mexican army, armed and equipped otherwise without regard to expense, still wear the leather sandal in preference to shoes, not solely for the sake of economy, but because it is considered generally healthier, keeps the feet in better condition; is more easily repaired or replaced, and makes easier marching.

The shoe-wearing population of the Republic is chiefly of European origin or descent, and such of the Indian population as by education and association have learned to prefer European fashions and modes of living. This class has inherited from their Indian as well as their Spanish ancestors remarkably small, well-modeled feet and hands upon which they pride themselves considerably; consequently a handsome and elegantly shaped shoe is more esteemed in Mexico than a sound and substantial one, and commands a readier sale. Hence, the cheaper shoes made in this country, if not so strong and durable, are more carefully modeled and several sizes smaller than the average trade shoe made in the United States.

Women's and children's shoes especially are made on the French model with very high heels, of a great variety of light materials, and luxuriously adorned with stitching, gold and silver embroidery, bows, lace buttons, and metallic buckles. The more solid shoes for men and boys are also made with high heels and with lighter soles than the average of that class in the United States. Pegged shoes are not made here owing to the extreme dryness of the atmosphere, which shrinks the wood and the pegs fall out in consequence. The soles are sewed in the lighter shoes, and fastened with small metallic tacks in the heavier shoes, frequently causing great inconvenience to the wearer, as the points are apt to push through the leather and tear his stockings and feet.

The shoes exhibited here in the shop windows and made in the shops are precisely the same in styles and varieties as those seen in Paris or New York, omitting the heavier styles specially adapted for our snows and winter climate and the coarser trade shoes manufactured for the class which does not wear shoes in this country.

High boots as a rule are not worn in Mexico, leather overalls and tight riding pantaloons, with the outer seams richly adorned with rows of silver buttons and chains, being the fashionable outfit of a Mexican cavalier either in town or country.

The military riding boot is worn to some extent by the higher officers of the army, and civilians who affect English fashions sometimes appear on the Paseo in riding boots; but these appear only as exotic fancies, and high boots, as inappropriate to the climate and not in accordance with Mexican tastes, are not likely to come into use here either for horsemen or pedestrians. Fair leather shoes are commonly worn on horseback.

#### SHOE MANUFACTURE IN MEXICO.

The native Mexicans are excellent shoemakers, and the business gives employment to a great many people. Most of the work, however, is done in small shops and singly. There are no organized or extensive shoe factories here which manufacture by wholesale, but there are many establishments where the business is carried on by a capitalist, who

employs a dozen or more hands and also puts out work. There are also French and German shoemakers established in this city, but no Americans that I have ever heard of. Shoes are for the most part made to individual order and measure, and no large stocks of ready-made ever accumulate. The surplus product of the shops being all exhibited in the show-cases, in open air stalls along the sidewalks, and hawked about by itinerant salesmen. There is a very limited importation of high-class shoes from France and still less from England, and, in this district, none from the United States, except it may be an occasional experimental shipment, which is never repeated by the same parties.

The only machinery used in the manufacture of shoes in this city is the sewing-machine of Howe's or Singer's patent. One or the other of these machines may be found in every Mexican shoemaker's shop, great or small.

In this city the retail price of shoes for adults, of Mexican leather, is from \$1.75 to \$3 per pair; of imported so-called French or English leather, from \$4 to \$6. The average price of shoes made to order is about 25 per cent. less than in the United States, both labor and material being cheaper and the supply generally quite equal to the demand. The foregoing conditions apply especially to this city and consular district, which embraces the greater proportion of the shoe-wearing population of the Republic. We have information that shoes from the United States have been introduced to some extent into Vera Cruz and other seaports, and also into the Mexican States bordering on the Rio Grande, whether successfully or not may be more satisfactorily ascertained from the consuls in those districts.

*Mexican leathers in common use.*

Mexican name.	English name.	Price per whole skin.
Suela .....	Sole .....	\$10 00 to \$12 00
Baqueta baya.....	Calf, fair.....	8 00 to 10 00
Baqueta de derecho negra .....	Calf, black .....	8 00 to 10 00
Baqueta charolada .....	Calf, japanned .....	12 00 to 14 00
Chagrin del país .....	Calf, grained.....	1 00 to 1 25
Cabra-Taflete .....	Goat-morocco .....	1 50 to 2 00
Cabritilla blanca y de colores.....	Kid and sheep .....	2 00 to 2 50
Meyis .....		1 00 to 1 50
Venado .....	Buck-skin .....	2 50 to 5 00
Gamuza .....	Dee-skin and antelope.....	1 00 to 1 50
Badanas .....	Sheep-skin.....	*3 00

\* Per dozen.

*Imported leathers.*—French calf; French japanned; English calf; English grained.  
*Shoemakers' wages.*—Master cutter, &c., \$1 per day; journeymen work by the piece, for a pair of shoes or bootees for adults, if soled with tacks, 50 cents, if sewed, \$1.

*Lasts* are made of ash, from 10 to 30 centimeters in length.  
*Blacking*, said to be of superior quality, is manufactured here and sold at 3 cents per box.

On the foregoing tariff rates there are additional charges (aumentos) levied for various purposes, amounting in all to between 16 and 18 per cent. on the original duties, to wit: aumento of 4 per cent. on the original tariff; aumento of 5 per cent. on the aggregate; municipal tax of 2 per cent. on the foregoing aggregate; a consumption tax of 5 per cent. on the whole aggregate levied where the goods are destined for sale; and an internal-revenue tax of one-half per cent. on all values of goods sold.

DAVID H. STROTHER,  
*Consul-General.*

MEXICO, May 30, 1885.

## MATAMOROS.

REPORT OF CONSUL-GENERAL SUTTON.

## DOMESTIC PRODUCTION OF LEATHER.

The tanning of hides and skins is carried on in various favorable localities, but more especially as regards Northern Mexico, in the States of Durango, Zacatecas, San Luis Potosi, Coahuila, and Nuevo Leon.

Except in a few localities the tanneries are small and of the most primitive fashion.

The 10,000,000 inhabitants of Mexico use, almost entirely, home-made boots, shoes, gaiters, slippers, and sandals.

The annual output of the tanneries in and near Saltillo is estimated at 9,000 or 10,000 hides, about one-half of which is sole-leather. The upper-leather weighs from 15 to 25 pounds, and is worth about 35 cents a pound. The sole-leather weighs 20 to 35 pounds, and sells for about 40 cents a pound. There are about the same number of tanneries in and near Monterey, and the annual output is nearly the same.

The Mexican leather and manufactures thereof are almost wholly consumed in the country. A small quantity goes to Spain. The tanning is almost entirely of beef hides and calf-skins. A few goat and other skins are tanned for special uses.

## TANNING MATERIALS.

The materials used are principally oak bark, "cáscara de encino," and "cascalote," a seed or pod.\* These are found in limited quantities in various portions of the country. Barks of other trees, mesquite, &c., are also used in some localities. "Cáscara de timbra," a bark of a sort of mountain hyssop, is used to give a red color, and "calderona," a root, to give a white color.

The methods of tanning greatly resemble those in vogue in the United States twenty-five to fifty years ago.

The time used in tanning is all the way from six weeks to as many months. There is nothing to compare with the system and economy of such establishments in Michigan and Pennsylvania. In many sections each village has a tanner. A hide and some tanning-bark are brought to him by the rancheros, and he tans it for a share or for a price. A square piece of leather large enough to make a pair of "guaraches" often sells for 37 cents.

The oak bark and the "cascalote" are not as yet produced in great quantities. Large supplies of these may be found, and the known supply of tannic acid in the mesquite and other trees, barks, and roots may be made profitable. In this event it would apparently be a good investment to establish American tanneries in suitable localities.

The hides and skins used are produced in the country and cost from 25 to 35 cents a pound.

## IMPORTS OF LEATHER.

The United States sends but little leather to Mexico. Nearly all the imports of leather are of French calf. The statistics of importations

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\*Consul Campbell (Monterey) describes this as the pods of Acacia, containing a large percentage of tannic acid, and producing a finer-finished leather. Cascalote is brought to Monterey from San Luis Potosi, but can be obtained in other portions of the Republic. It costs from 7½ to 8 cents a pound.

given in the following table for the years 1873, 1874, and 1875 are the latest made public by Mexico. Some of the French calf therein credited to England was made in France, but received in Mexico by British vessels.

*Imports of Mexico.*

Countries.	1873.			1874.			1875.		
	Invoice value.	Plaza value.	Duties.	Invoice value.	Plaza value.	Duties.	Invoice value.	Plaza value.	Duties.
<b>GERMANY.</b>									
Calf and other prepared skins.....	\$18,826	\$25,557	\$8,935	\$15,721	\$21,869	\$6,423	\$3,686	\$6,711	\$2,695
Boots, shoes, all classes...	886	1,335	312	127	168	76	29	50	20
Harness, all kinds.....	86	116	48	826	572	178	.....	.....	.....
	14,748	27,008	9,835	16,174	22,609	6,677	3,715	6,761	2,715
<b>SPAIN.</b>									
Calf and other prepared skins.....	404	778	285	63	107	81	396	658	263
Boots, shoes, all classes...	300	420	130	148	264	105	107	205	48
Harness, all kinds.....	.....	.....	.....	10	24	12	19	36	13
	704	1,193	415	221	395	148	522	899	319
<b>FRANCE.</b>									
Calf and other prepared skins.....	39,962	54,650	25,821	35,501	49,067	23,135	24,396	35,273	15,216
Boots, shoes, all classes.....	8,459	11,618	5,522	11,379	16,284	8,077	14,459	20,228	9,581
Harness, all kinds.....	2,781	8,726	1,854	1,320	1,786	860	833	493	220
	51,202	69,994	33,197	48,200	67,137	32,072	39,188	55,994	25,017
<b>ENGLAND.</b>									
Calf and other prepared skins.....	19,072	27,298	12,823	19,709	28,534	13,072	20,161	28,814	13,820
Boots, shoes, all classes.....	4,066	6,675	3,156	2,051	4,194	1,598	2,428	3,918	1,569
Harness, all kinds.....	1,465	1,709	983	19	50	15	523	698	345
	24,603	35,677	16,962	21,779	32,778	14,685	23,112	33,430	15,734
<b>UNITED STATES.</b>									
Calf and other prepared skins.....	18,345	25,272	8,486	12,409	22,563	8,911	7,785	10,824	4,427
Boots, shoes, all classes.....	98,372	147,459	62,036	85,480	115,373	56,510	78,859	99,630	55,675
Harness, all kinds.....	2,172	3,065	929	4,910	7,396	3,659	3,636	5,887	3,222
	118,889	175,796	71,451	102,799	145,332	69,080	90,280	116,341	63,324
<b>SOUTH AMERICA.</b>									
Calf and other prepared skins.....	4,125	6,730	1,422	12,910	16,138	3,425	189	283	85
Boots, shoes, all classes.....	5,097	7,125	1,197	6,155	8,106	1,947	18	33	14
Harness, all kinds.....	.....	.....	.....	108	130	22	23	35	18
	9,222	13,855	2,619	19,173	24,374	5,394	230	351	117
<b>SUMMARY.</b>									
Calf and other prepared skins.....	95,734	140,275	57,832	96,313	138,278	54,997	56,613	82,563	36,506
Boots, shoes, all classes.....	117,180	174,682	72,853	105,340	144,389	68,818	93,900	124,064	66,902
Harness, all kinds.....	6,454	8,616	3,814	6,693	9,958	4,746	4,534	7,149	3,818
	219,368	323,523	133,999	208,346	292,625	128,561	157,047	213,776	107,226

**AMERICAN LEATHER.**

The American leather dealers can compare the American with the French calf-skins.

Something light, cheap, showy, and fairly durable would compete for the small trade in this line. American leather, heavy upper and sole would not sell here because of the abundant native supply of a cheap grade, and the high present and prospective import duty. There is no special use in making an effort in this direction.



In calf-skins, as I have noted, something might be done. The present or prospective demand for American harness or harness leather is quite small.

The Mexican leather lacks the body and finish of the American product, and is much softer and more porous. The black coloring is not generally well fixed, and the leather soon turns to its natural color. A black shoe is considerably more expensive than one of lighter color.

Leathern bottles are often used here to carry water on the road, and when wrapped with a damp cloth keep the water sweet and cool.

An attempt to use bottles of American leather proved a failure. The leather was too close-grained, so that the water kept hot and spoiled.

#### SADDLERY.

The saddles of Mexico are justly famous. Very fine saddle leather is made in San Luis Potosi, and in many other places. The saddle-trees of Parras are noted, and the bare tree often sells for \$20.

A good plain saddle sells at from \$8 to \$15, and will last many years. More elaborately made they cost \$25 to \$50, and when silver mounted from \$100 to \$500. A Mexican saddle at from \$30 to \$50, with trappings, bridle, bit, spurs, &c., I consider the best riding gear in the world.

In a country where half the male population ride, the saddlery business is important. In spite of the excellence of the home productions the United States has for many years sent Mexico from \$20,000 to \$35,000 worth of cheap saddles. The mechanical appliances used in the United States for making the trees and for stamping and cutting the leather compete sharply with the hand work of the Mexican artisan. In spite of the high import duty this trade can be considerably increased; it might easily reach \$100,000 per annum.

Some Mexican dealers have sent to the United States model trees and designs for the trappings, and have the major part of the work done there. On the border this is more profitable than to do it all by hand.

#### BOOTS AND SHOES.

Roughly speaking, one-half the population wear shoes and the other half sandals (guaraches) or go barefooted.

Outside this frontier 95 per cent. of the shoes are home-made. Perhaps I might make this per cent. still larger.

With French calf-skins for uppers and native leather for soles the Mexican shoemakers supply a small demand with a fair imitation of the typical French article. The boot, generally wholly of native leather, is highly ornamented, and the leg goes to or above the knees. It is used mostly for riding. A pair costs all the way from \$10 to \$25.

Half-boots, gaiters, and quarter-shoes (for men) are the most commonly used. Some have buttons, some lace, and others have rubber. Prices range with locality, time, and quality from \$1 to \$6.

All except the very commonest and cheapest grades have high heels set well forward, narrow soles, pointed toes, high instep, and rarely go above No. 7 or 8 American size, or "B" width. Except along this frontier, and here very rarely, a cowhide or "stogy" American boot is never seen.

In women's and children's goods the same general style obtains. Women's sizes, except for the most common grades, rarely go above No. 3 to 4 American size, and "B" or "C" width. A cheap prunella gaiter is imported here; as is also a sort of cloth top, pasteboard sole, sandal slipper. Both are French.



## AMERICAN SHOES.

The main objections to the American half-boots, gaiters, shoes, and slippers would be that they were too heavy, too large, too wide sole, too low and broad heel, heel too far back, and too low instep. Then many of the cheap or medium American grades have no half sizes. This would be very necessary. Finally, and more than all, is the import duty.

On this frontier, and especially within the limits of the Zona Libre, some cheap American shoes and boots are used.

By a table already printed it is shown that the United States exported to Mexico nearly 100,000 pairs in the two years 1881-'82, valued at \$133,000.

The imports of American boots and shoes at Matamoros for 1879 were \$37,498; for 1880, \$40,855; for 1881, \$38,999; and for 1882, \$51,345. As the total exports for 1881 were only \$48,207 and for 1882 \$85,327, it is seen that the greater portion passed in at Matamoros. Some of this trade has since gone to Nuevo Laredo. The late extension of the Zona Libre will nearly double this trade. The legitimate import would be only that needed to supply the local demand in competition with the Mexican articles.

But as people beyond the Zona like to see an American shoe, especially a smuggled one, and as one or two or even a dozen pairs can be easily hidden, a considerable contraband trade exists. Many buy a new pair and put them on to wear back for themselves or for another.

## SHOEMAKING.

There is no factory system in this section. Work is done to order or by the piece in individual shops. Repairing, making sandals and shoes of various grades to order, and piece-work for storekeepers, are often done by one or two men in a single shop.

Regular piece-makers get a supply of cut or uncut material and an advance either of money or trade and work at home. These workmen receive from \$3 to \$10 per week. The usual average price is probably about \$5. A considerable number of stitching machines are in use, but no other labor-saving machinery is as yet used.

The output of each district is first to supply the local demand, and second to send to other districts in the same country. Saltillo and Monterey are considerable producers, as also are Leon, Mexico, Zacatecas, and other cities toward the interior.

Various classes and grades are made, ranging from the ("charol") japan-finished calf, ("becerrillo") calf or kip, and ("cabritilla") goat or kid skin, down to those made from the leather in its most natural state.

The following may be called the average range of prices of the various classes:

Articles.	First quality and style.	Second quality and style.
Boots (men) .....	\$7 00 to \$10 00	\$4 00 to \$6 00
Shoes, &c., (men) .....	4 00 to 7 00	3 00 to 5 00
Shoes, &c., (women) .....	3 00 to 5 00	2 00 to 3 00
Shoes, men and women, common .....		\$1 00 to \$1 50.
Sandals, "guaraches" .....		12½ to 37½ cents.

Boots and half-boots of calfskin or patent-leather at \$2.50 per pair, and low shoes of leather or material other than silk, with or without ornaments, at 45 cents per pair, might be sold for city trade and even compete with the Mexican articles. To do this the special lasts, sizes, half or quarter sizes, styles, &c., must be carefully studied. The argument of many American makers that their goods are so good as to become popular wherever known will hardly obtain in this case. The American shoe will have to be adapted to the Mexican foot if it hopes to get on.

Durability is not so important as style and a low price. Besides the increase in trade mentioned above, American boot and shoe factories properly handled would be, in my opinion, quite profitable in various portions of Mexico.

#### PACKING.

All goods destined for Mexican markets should be carefully put up and correctly invoiced. Packages should be strong, but no larger or heavier than really necessary. While freight rates are only about 50 per cent. as high as they were five years ago, they are yet high enough to make it profitable to put goods in good shipping trim. Of course heavy goods pay by weight and light goods by measurement. It is a long distance, the freight has to be handled many times, and boxes and packing suitable for even transcontinental freights in the United States will not stand this journey.

For boxes, light, strong woods, such as tulip-wood, white wood, bass-wood, or pine cut thin, are best, and the nails should be wrought nails and carefully placed. Care should be taken to have the marks and numbers plain, so that correct reference may be had to the invoice.

Leather, harnesses, saddles, &c., may be put up in bundles with securely-attached labels for reference. The invoice should be at the border before the arrival of the goods, and it should be strictly correct. It may be in English with American weights, measures, &c. Loose methods of making out an invoice or bill of goods will not do in this trade. Weigh, measure, count, mark, and number carefully, and then enter the gross, legal, or net weight, dimensions, or quantities plainly without erasures or interlineations. Any variation may chance to be sufficient to cause extra duties, fines, or a loss of goods. Shippers will find full directions in Consular Reports No. 52½, for May, 1885.

By net weight is meant the exact weight of the goods; by legal weight is meant besides the net weight that of the interior bottles, boxes, braces, covers, &c., in which the goods come; and by gross weight the total weight of the package.

As a matter of course all goods must be received and entered by some agent at the frontier. At Paso del Norte the Mexican Central Company now has an agent who receives all goods consigned to the company there, enters the same, pays the duties, and forwards them to their interior destination. I believe the only charges are to repay his expenses, and that it is done by the company to draw traffic and not to produce revenue.

Unknown persons would have to remit in advance for duties, charges, &c., or furnish references.

At Matamoros, Nuevo Laredo, and other points on the frontier, brokers receive and dispatch goods, charging expenses and a small commission, usually less than 2½ per cent. on the invoice value.

Sooner or later all principal railways will have to follow the Central's example.

In filling orders for goods the first and most important thing to do is to follow orders.

## CREDIT AND BUSINESS METHODS.

The system of long credits in vogue here has been a drawback to the increase of American trade. The American merchant could not always afford to give the long credit asked and necessary here. This tended to reduce purchases to few and small cash transactions. But the influence of the railways has changed the conditions. Some Mexican dealers buy in small lots and get prompt delivery through commercial travelers, and pay cash or 30 to 120 days. They have generally found this profitable, and the number of such purchasers is steadily increasing. The chambers of commerce at Matamoros, Monterey, and other cities are now discussing and endeavoring to bring about a shorter term of credits and to increase the cash purchases. This move is quite favorable to American trade interests.

## EXTENDING THE MARKET.

There are various methods of placing our goods on the Mexican market. In discussing these, I will premise by saying that not every house should attempt the Mexican trade.

One or more large houses or associations should send skilled men to study the whole subject of the trade, and if found advisable establish agencies in the principal cities. The immediate profits would be small. It might even result in slight loss for the first year, but a demand once created, the trade would steadily if not rapidly increase.

Another method would be to arrange with good local houses, have them furnish lasts, styles, &c., and make a small supply to be sold on commission or in partnership with the Mexican houses.

## LEATHER MERCHANTS.

There are no exclusively boot and shoe or leather dealers here, but I incline to the opinion that a judicious combination of Mexican and American leather goods would be profitable.

In El Paso, Tex., Paso del Norte and Chihuahua, Mex., the firm of Ketelsen & Degetan would be most likely to undertake the work.

They have ample credit and good connections in the interior. Mr. William Purcell, at Saltillo; Pedro Maiz & Co., at Monterey and Nuevo Laredo; Francisco Armendaiz, at Matamoros, Mier, Nuevo Laredo, Monterey, and Paso del Norte; Henry Vizcaya, at Mier; Bloomberg & Raphael, of New York, at Brownsville, Tex., and Matamoros, would be good houses to undertake this trade. Some of these are Spaniards, some Germans, Americans, and English; and while they usually have their national preferences, yet in matters of trade they are governed by business considerations. If they can see present or prospective returns, they will answer letters and give all needed assistance.

WARNER P. SUTTON,  
*Consul-General.*

UNITED STATES CONSULATE-GENERAL,  
*Matamoros, July 14, 1885.*

TABLE A.—Exports from Mexico, 1873, 1874, and 1875.

1873.

Articles, and whence exported.	Germany.	Spain.	England.	United States.	South America.	Total.
<b>Prepared skins:</b>						
Manzanillo .....	345					345
Mazatlan .....				628	58,200	58,828
Progreso .....		86,662	1,137			87,799
Salina Cruz .....					48	48
Soconusco .....					50	50
Tonala .....					593	593
Vera Cruz .....	148	25				173
Paso del Norte .....				10		10
Piedras Negras .....				203		203
<b>Total .....</b>	<b>493</b>	<b>86,687</b>	<b>1,137</b>	<b>841</b>	<b>58,891</b>	<b>148,049</b>
Articles, and whence exported.	Spain.	France.	England.	United States.	South America.	Total.
<b>Saddles:</b>						
Acapulco .....					50	50
Manzanillo .....				20		20
Mazatlan .....			50			50
Progreso .....	86			114		200
Salina Cruz .....					605	605
Tonala .....					159	159
Vera Cruz .....	290	200	30			520
Camargo .....				44		44
Monterey .....				35		35
Paso del Norte .....				10		10
Piedras Negras .....				134		134
<b>Total .....</b>	<b>376</b>	<b>200</b>	<b>80</b>	<b>357</b>	<b>814</b>	<b>1,827</b>
Articles, and whence exported.	Germany.	Spain.	France.	United States.	South America.	Total.
<b>Boots, shoes, &amp;c.:</b>						
Salina Cruz .....					790	790
Tonala .....					61	61
Vera Cruz .....				190		190
<b>Total .....</b>				<b>190</b>	<b>851</b>	<b>1,041</b>

1874.

Articles, and whence exported.	Germany.	Spain.	France.	United States.	South America.	Total.
<b>Prepared skins:</b>						
Manzanillo .....				146		146
Matamoros .....				6		6
Mazatlan .....				338		338
Progreso .....		71,381				71,381
Salina Cruz .....					270	270
Tabasco .....				160		160
Tonala .....					452	452
Vera Cruz .....			250			250
Monterey .....				10		10
Presidio del Norte .....				155		155
<b>Total .....</b>		<b>71,381</b>	<b>250</b>	<b>815</b>	<b>722</b>	<b>73,168</b>

TABLE A.—Exports from Mexico, 1873, 1874, and 1875—Continued.

1874.

Articles, and whence exported.	Spain.	France.	England.	United States.	South America.	Total.
<b>Saddles:</b>						
Acapulco .....					395	395
Manzanillo .....				1,500		1,500
Mazatlan .....				40		40
Salina Cruz .....					375	375
Tonala .....					275	275
Vera Cruz .....	176	500	25			701
Monterey .....				120		120
Piedras Negras .....				18		18
Presidio del Norte .....				100		100
	176	500	25	1,778	1,045	3,524
<b>Articles, and whence exported.</b>	<b>Spain.</b>	<b>France.</b>	<b>England.</b>	<b>United States.</b>	<b>South America.</b>	<b>Total.</b>
<b>Boots, shoes, &amp;c.:</b>						
Tonala .....					118	118
Vera Cruz .....	180					180
<b>Total .....</b>	<b>180</b>				<b>118</b>	<b>248</b>

1875.

Articles, and whence exported.	Germany.	Spain.	France.	England.	United States.	Total.
<b>Prepared skins:</b>						
Campeche .....				400		400
Manzanillo .....					265	265
Matamoros .....	15				29	44
Progreso .....		43,589		1,949		45,538
Vera Cruz .....		117	25,812	18,517	3,370	42,816
Camargo .....					171	171
Piedras Negras .....					380	380
Presidio del Norte .....					354	354
<b>Total .....</b>	<b>15</b>	<b>43,706</b>	<b>25,812</b>	<b>15,866</b>	<b>4,569</b>	<b>89,968</b>
<b>Articles, and whence exported.</b>	<b>Germany.</b>	<b>Spain.</b>	<b>France.</b>	<b>England.</b>	<b>United States.</b>	<b>Total.</b>
<b>Saddles:</b>						
Campeche .....				100		100
Manzanillo .....					120	120
Matamoros .....					15	15
Mazatlan .....					49	49
Progreso .....				12		12
Vera Cruz .....			50		695	745
Monterey .....					97	97
Paso del Norte .....					20	20
<b>Total .....</b>			<b>50</b>	<b>112</b>	<b>996</b>	<b>1,158</b>
<b>Articles, and whence exported.</b>						<b>South America.</b>
<b>Boots, shoes, &amp;c.:</b>						
Acapulco .....						85
Salina Cruz .....						60
<b>Total .....</b>						<b>95</b>

*Exports of hides and skins (tanned) from Mexico, 1884.*

[Values in Mexican silver.]

Ports.	Quantity.	Value.
	<i>Kilos.</i>	
Camargo.....	121	\$115 50
Nogales.....	323	221 00
Nuevo Laredo.....	39	68 00
Piedras Negras.....	1,965	1,388 00
Progreso.....	53,055	24,768 35
Puerto Angel.....	92	30 00
Tonala.....	41	20 50
Vera Cruz.....	1,773	550 20
Total.....	57,409	27,161 55

Exported as follows:

Spain.....	\$24,678 35
France.....	455 20
England.....	155 00
Colombia.....	30 00
United States.....	1,792 50
Honduras.....	20 50
Total.....	27,161 55

*Exports of saddles from Mexico, 1884.*

[Values in Mexican silver.]

Camargo.....	\$102 00
Nuevo Laredo.....	111 00
Piedras Negras.....	177 00
Salina Cruz.....	40 00
Tonala.....	54 00
Vera Cruz.....	877 25
Total.....	1,361 25

Exported as follows:

Germany.....	39 25
Spain.....	488 00
France.....	805 00
England.....	15 00
United States.....	420 00
Guatemala.....	40 00
Honduras.....	54 00
Total.....	1,361 25

*Exports of hides and skins (untanned) from Mexico, 1884.*

BEEF.

[Values in Mexican silver.]

Ports.	Quantity.	Value.	Ports.	Quantity.	Value.
	<i>Kilos.</i>			<i>Kilos.</i>	
Acapulco.....	246,677	\$63,041 80	Paso del Norte.....	40,707	\$10,682 00
Bahia de la Magdalena.....	1,216	244 00	Piedras Negras.....	62,087	13,581 00
Cabo de S. Lucas.....	20,036	3,919 64	Progreso.....	406,341	98,593 66
Camargo.....	27,759	8,946 84	Salina Cruz.....	179,893	35,285 08
Campeche.....	25,386	6,160 48	San Blas.....	35,329	4,234 00
Guaymas.....	118,075	24,714 00	Sásabe.....	4,584	583 00
Guerrero.....	25,468	7,768 91	Soconusco.....	56,215	11,776 87
Isla del Carmen.....	221,304	30,011 22	Tabasco.....	185,647	47,439 79
La Paz.....	114,320	21,827 45	Tampico.....	237,941	77,048 22
Manzanillo.....	40,115	9,429 40	Todos Santos.....	117	20 00
Matamoros.....	202,489	53,487 93	Tonala.....	31,042	7,760 50
Mazatlan.....	76,698	23,298 00	Tuxpan.....	44,698	14,961 75
Mier.....	46,797	17,624 90	Vera Cruz.....	753,914	199,427 92
Nogales.....	5,233	1,269 50	Total.....	3,334,690	839,493 20
Nuevo Laredo.....	124,602	46,380 34			

Exported as follows:

Germany.....	\$69,791 68
Spain.....	18,479 80
France.....	26,157 65
England.....	20,641 00
Colombia.....	35,624 90
United States.....	668,065 17
San Salvador.....	720 00
Total.....	839,493 20



*Exports of hides and skins (untanned) from Mexico, 1884—Continued.*

## DEER.

Ports.	Quantity.	Value.	Ports.	Quantity.	Value.
	<i>Kilos.</i>			<i>Kilos.</i>	
Acapulco .....	22,657	\$15,215 65	Progreso .....	97,765	\$88,866 64
Bahia de la Magdalena..	88	28 00	Salina Cruz .....	3,255	1,721 70
Cabo de S. Lucas .....	972	312 80	San Blas .....	213	180 00
Camargo .....	3,341	1,435 10	Soconusco .....	5,892	4,364 65
Campeche .....	2,447	1,119 00	Tabasco .....	6,568	4,046 59
Guerrero .....	567	276 75	Tampico .....	5,646	4,337 56
Isla del Carmen .....	3,680	1,643 50	Tonala .....	5,392	5,215 75
Manzanillo .....	3,603	1,575 00	Tuxpan .....	10,099	8,648 02
Matamoras .....	22,634	11,016 22	Vera Cruz .....	27,827	20,863 22
Mier .....	2,312	1,196 00			
Nuevo Laredo .....	5,018	2,799 90	Total .....	230,217	174,943 05
Piedras Negras .....	141	81 00			

## Exported as follows:

Germany .....	\$8,844 90
Spain .....	567 20
England .....	768 00
Colombia .....	5,327 10
United States .....	159,095 85
San Salvador .....	340 00
Total .....	174,943 05

## KID.

Ports.	Quantity.	Value.	Ports.	Quantity.	Value.
	<i>Kilos.</i>			<i>Kilos.</i>	
Acapulco .....	6,274	\$2,296 40	Paso del Norte .....	2,324	\$510 00
Cabo de S. Lucas .....	10	2 00	Piedras Negras .....	11,106	4,638 00
Camargo .....	16,822	13,512 24	Tampico .....	8,755	3,669 20
Guerrero .....	9,839	5,318 69	Todos Santos .....	93	56 00
Matamoras .....	73,443	50,126 98	Vera Cruz .....	642,764	404,379 17
Mier .....	16,796	14,223 00			
Nuevo Laredo .....	806,464	191,680 34	Total .....	1,089,690	690,411 97

## Exported as follows:

Germany .....	\$85 10
Spain .....	310 00
France .....	150 00
Colombia .....	966 80
United States .....	688,900 07
Total .....	690,411 97

## SHEEP.

Ports.	Quantity.	Value.
	<i>Kilos.</i>	
Mier .....	2,266	\$1,700
Nuevo Laredo .....	6,453	4,176
Piedras Negras .....	1,429	396
Total .....	10,148	\$6,272

\* All exported to the United States.

Exports of hides and skins (untanned) from Mexico, 1884—Continued.

ALL OTHER.

Ports.	Value.	Ports.	Value.
Acapulco .....	\$25 00	Piedras Negras .....	\$206 00
Camargo .....	687 56	San Blas .....	150 00
Guerrero .....	51 46	Tabasco .....	200 00
Manzanillo .....	7 00	Vera Cruz .....	113 50
Matamoros .....	4, 174 87	Total .....	8, 973 19
Mazatlan .....	26 00		
Mier .....	3, 331 80		

Exported as follows :	
Germany .....	\$35 00
France .....	101 00
Colombia .....	155 00
United States .....	8, 682 19
Total .....	8, 973 19

SUMMARY.

Hides.	Quantity.	Value.
	<i>Kilos.</i>	
Beef .....	2, 334, 690	\$839, 493 20
Kid .....	1, 089, 690	690, 411 97
Sheep .....	10, 148	6, 272 00
Deer .....	230, 217	174, 943 05
Other .....		8, 973 19
Total : .....	4, 664, 745	1, 720, 093 41

GUERRERO.

REPORT OF VICE-CONSUL WINSLOW.

TANNING INTERESTS.

Within the limits of this consular district there are no tanneries for beef hides; however, a few goat and deer skins are tanned into a coarse kind of chamois leather, used for making shoes. About fifty leagues from here, in the towns bordering on and situated in the valleys of the Sierra Madre range of mountains, there are numerous small tanneries, where beef hides are made into sole leather, by the most primitive processes, but no calf-skins are prepared as I am aware.

The hides and skins are obtained in the immediate neighborhood of the tanneries. They cost from 10 to 12 cents a pound. An ordinary beef hide when fresh is worth from \$2.50 to \$3. Beef hides are dried by staking them out on the ground, and more or less dirt is sprinkled over them, to increase their weight. A peculiar sort of white earth is used for this purpose. They are worth when dried from 12 to 14 cents a pound. A beef hide when dry weighs considerably less than when fresh. A cart load of dry hides will average twenty-five pounds each.

Nearly all the hides exported from here go to depot of Peña on Mexican National Railroad, and from there to Corpus Christi, where they are shipped to New York. The value of hides and skins exported from here to United States, by way of Cay Carrizo, for the fiscal year ending June 30, 1885, amounted to \$14,107.20, United States coin. A quantity of hides was also exported by way of Laredo, but figures are unattainable.

The principal material used in tanning is oak bark, which is obtained in the mountains. Besides oak bark, other herbs are used to assist in tanning, such as encinilla, agrito, chaparro prieto—all small bushes—and cascalote, a yellow pod about three inches long, half an inch wide, and a quarter of an inch thick, which, besides being used for tanning, imparts a fine yellow color to the hides, and is used by the shoemakers to impart a yellow color to the soles of shoes.

The process of tanning beef hides consists in first steeping them in vats with lime water. They are then scraped with a dull knife, to take off the hair, and afterward soaked in an infusion of barley to remove the lime. They are afterwards well washed in fresh water, and then put on a plank and rubbed with smooth round stones, or a piece of hard wood, to remove the grease and green matter. The hides are then doubled up lengthwise, and filled with oak bark, well ground up, and their sides sewn together, forming a sort of bag. These bags are then put, for a few days, into an infusion of oak bark, contained in vats, taken out, and left in the shade for a long time, and kept constantly wet with water thrown over them, so that the infusion can penetrate the hide. The last step in the process consists in spreading out the hides to dry, and in rubbing the side where the hair was with grease and brains of animals, in order to make them soft and give them the necessary polish and finish.

The process of tanning hides consumes about three months. They are sold at the tannery for \$7 or \$8, and even less, but are worth here \$12 to \$13. In the interior of Mexico, besides sole leather, good calf-skins are made, and leather for saddles, bridles, harness, &c.

I can obtain no reliable data of the amount of leather manufactured, but the following table shows how much was exported during the year ending June 30, 1884 :

*Exportation of hides, skins, and leather from the Republic of Mexico for the fiscal year ending June 30, 1884.*

Kind of merchandise.	Quantity.	Destination.	Value.	Total.
	<i>Kilograms.</i>			
Tanned hides and skins ..	57,408	Spain .....	\$24,678 35	
		France .....	455 20	
		England .....	185 00	
		Colombia .....	30 00	
		United States .....	1,792 50	
		Honduras .....	20 50	
				\$27,161 55
Sheep-skins .....	10,147	United States .....	6,272 00	
				6,272 00
Goat-skins .....	1,089,689	Germany .....	85 10	
		Spain .....	310 00	
		France .....	150 00	
		England .....		
		Colombia .....	966 80	
		United States .....	688,900 07	
				690,411 97
Beef hides .....	3,334,689	Germany .....	69,791 68	
		Spain .....	18,479 80	
		France .....	26,157 65	
		England .....	20,641 00	
		Colombia .....	35,624 90	
		United States .....	668,068 17	
		San Salvador .....	730 00	
				889,493 20
Deer-skins .....	230,217,274	Germany .....	8,844 90	
		Spain .....	567 20	
		England .....	768 00	
		Colombia .....	5,327 10	
		United States .....	159,095 85	
		San Salvador .....	340 00	
				174,943 05
Skins of other animals .....		Germany .....	35 00	
		France .....	101 00	
		Colombia .....	155 00	
		United States .....	8,682 19	
				8,973 19
Total .....	234,709,207			1,747,254 96

## IMPORTS OF LEATHER.

The amount of leather imported into Guerrero from the United States during fiscal year ending June 30, 1885, amounted to only 97 kilograms gross weight and 68 kilograms net weight, the invoice value of which was \$130, and market value \$200. This leather consisted of dressed calf-skins, and probably came in bond from France. No sole leather was imported. The largest amount of leather, including sole leather and calf-skins, comes from the interior of Mexico, through Monterey. As informed by a leading merchant here, American leather is not imported, as it does not suit the market. French leather is preferred, being better prepared and cheaper, considering the quality, as leather pays the same duties whether good or bad.

## FAULTS FOUND WITH AMERICAN LEATHER.

American leather has a bad reputation, through bad specimens, and from an inferior quality having been put on the market, the skins often imperfect, not carefully prepared, often rotten, and the price asked too great. The best means for remedying the faults is to take greater care in the first place in selecting the skins, which I am convinced are often rotten, from the imperfect manner used in drying them here, and then to use materials in tanning which will not rot the leather, especially acids.

## OPENING THE MARKET.

The proper means would be to send out good samples, give long credits, and charge moderate prices. The consul or commercial agent could act as agent to show samples and obtain orders. I do not think it would be necessary to send out a special agent for this purpose. In the large cities of Mexico it might pay to establish a branch house dealing entirely in American leather and leather manufactures, but I do not suppose that leather manufactures from the United States can compete with those of Mexico, or foreign countries, unless they are put on the free list by a reciprocity treaty.

The chief dealers in leather are Miguel Volpe & Bro., Jose Ruiloba, M. Vela Ramiez, Melquinades Gonzales, and Porfirio Garza & Co.

The terms are four to six months and 8 per cent. interest after maturity; if on commission, the charges are actual cost and 5 per cent. for commission and guarantee.

## BOOTS AND SHOES.

There are no factories in this district. All shoes, except those imported or brought from the interior of Mexico, are made here when requested by local shoemakers, and those are few, and complain of want of work.

Sewing machines are used, but only for sewing the uppers; the rest is done by hand.

Shoes, or rather gaiters, buttoned or laced in front, are somewhat worn; but the shoe generally worn by men amongst the better classes is the calf-skin gaiter with elastics on the sides. These are made by shoemakers here, and cost six dollars a pair.

In the interior of Mexico, at Zacatecas, San Luis, Lagos, Leon, and other points, these gaiters in large quantities are made from Mexican leather, and are sold for \$3 a pair.

Mens' cowhide brogans are generally worn by the laboring classes in the cities and by farmers; they come from the United States and are generally acceptable and much sought after; they cost from 12 bits to 14 bits a pair; a better quality from Monterey cost \$2.

The chinela is a low shoe made either of leather or dressed goat-skin with elastics on the sides, a sort of gaiter, cut low. It is very much worn, and costs \$1.50 a pair.

Men's boots of calf skin are not used, shoes being preferred on account of the heat. Cowhide boots nearly reaching to the knees are somewhat used by rancheros, and these are always worn with the pantaloons tucked inside. Another kind made of finer material, and reaching above the knee, is used by custom-house guards and military officers. The first class are imported from the United States, and cost from \$3 to \$4, and the latter, which is often made of calf-skin, from \$6 to \$12 a pair.

The pantufla, or slipper, is made of imitation velvet for the part covering the front of the foot and toes, and adorned with a bunch of embroidered flowers, and for the part covering the instep, sides, and heel imitation patent leather with a ribbon bow at instep. Carpet slippers are also used. The first-named are sold for \$2 and the carpet slippers for \$1.50 a pair. These slippers have a sole made of pasteboard dyed to imitate sole-leather, and although they look fine when new, are worthless, and soon fall to pieces. I think a good and cheap quality of slipper would sell well here.

The guarache or sandal is made by cutting a piece of sole leather to the shape of the sole of the foot, and is tied on in front by a leather thong. They are not much used here, but in the interior of Mexico are entirely used by the laboring classes in place of shoes.

Ladies' gaiters are either made of bombazine with elastics, or laced in front, or of leather, buttoned or laced, and are generally used by women of the richer and middle class when they go out walking. A few satin and silk gaiters are also used, for weddings or balls. Velvet top gaiters are but little used. Bombazine gaiters cost here \$2 to \$3 a pair; leather gaiters \$1.50 to \$2. There are very few even of the poorest women who do not possess a pair of good gaiters for promenading purposes.

The babucha is a low shoe, made of Mexican morocco, or of tanned goat-skin, laced in front, worn by women of the middle and poorer classes, and even by the richer classes for home use. They are worn by poorer class out of doors as well as indoors, and perhaps are worn more than any other kind of shoe, as they are the cheapest. They cost \$1 or \$1.50, and are generally made here.

Children's shoes are made of morocco, buttoned or laced in front. Those that come from the United States cost 75 cents to \$1, Mexican children's gaiters 75 cents, and a better quality from France \$1.50.

A common slipper, made of cloth, is often used by women for house wear. They cost 50 cents. The shoes manufactured here are consumed entirely in this district. There are none exported.

IMPORTS.

*Boots, shoes, and other articles made of leather and other materials imported from the United States for the fiscal year ending June 30, 1885.*

Class of merchandise.	Quan- tity.	Invoice value.	Market value.	Duty paid.	Amount of duties.
Cloth and leather gaiters for women .....dozen..	44½	\$685 00	\$916 00	\$13 00	\$841 75
Cloth and leather gaiters for girls .....do...	3	28 00	37 00	7 00	21 00
Leather gaiters for men .....do.....	3	76 00	110 00	13 00	39 00
Gaiters without elastics for boys .....do.....	9	90 00	150 00	7 00	63 00
Gaiters without elastics for men and women ...do...	20½	320 00	500 00	13 00	266 50
Leather and cloth shoes for ladies .....do.....	47	466 00	619 00	5 50	258 25
Leather and cloth shoes for boys .....do.....	103½	737 00	1,035 00	5 00	516 25
Leather shoes for ladies .....do.....	3½	45 00	70 00	7 00	24 50
Leather shoes for men .....do.....	35½	342 36	530 00	7 00	248 50
Leather boots for men .....do.....	7	200 00	270 00	16 50	115 50
Leather boots for boys .....do.....	2	15 00	20 00	5 50	11 00
Slippers for women, without silk .....do.....	2	18 00	30 00	6 00	12 00
Leather gloves .....do.....	2	2 00	3 00	1 50	3 00
Total.....	282½	3,024 36	4,290 00	.....	2,420 25
Dressed skins .....kilograms..	68	130 00	200 00	1 43	97 24
Ordinary harnesses .....do...	15	4 00	10 00	86	12 90
Silk and cotton elastic .....do.....	11	18 00	24 00	57	6 27
India-rubber and cotton elastic .....do.....	1	3 00	5 00	57	57
Total.....	95	155 00	239 00	.....	116 98

AMERICAN SHOES.

Nearly all imported boots and shoes come from the United States, as do also articles of leather. A few fine silk and satin shoes come from France. However, probably one-half or more of the boots and shoes used here are of local manufacture, or are brought from the interior of Mexico. As Guerrero is within the Zona Libre, boots and shoes paying no duties from foreign countries can compete with Mexican manufactures, because they can be sold at the same or a less price; but in the interior of Mexico it is quite different. As the duty on boots and shoes is very heavy, amounting to 50 per cent. of the original cost, American shoes cannot compete with Mexican shoes. It is true that very fine French shoes of fine calf-skin or bombazine, satin, and silk are used by the very wealthy class in the interior of Mexico, but nine-tenths of the boots and shoes used in Mexico are of Mexican manufacture. I do not suppose that any boots and shoes of United States manufacture that have paid duties are sold in the interior of Mexico. Probably two-thirds of the Mexican population go bootless, shoeless, and stockingless. In the interior of Mexico two men out of every three wear guaraches or sandals, that is when they can afford them. The women either go barefoot, wear sandals, or generally a pair of cloth slippers, costing, say, 25 or 50 cents. A good pair of Mexican calf-skin gaiters, sewed by hand, can be bought anywhere in the interior for \$3, which is less than an American gaiter, sewed by machinery, can be sold for. Cheap labor and cheap material with heavy import duties, militate against the importation of boots and shoes from the United States. How do they compare with the manufactures of other countries? Of the same quality and for price the United States can hold their own, but for a superior and extra quality they cannot. It must be remembered that boots and shoes pay so much duty for each dozen pairs, regardless of original cost, except they are of satin or silk, and that it will not pay to send out an inferior quality.



To show manufacturers the kind and quality of boots imported here and most demanded, I inclose a copy of an invoice of boots of one of the principal stores here, bought from Boston, Mass.

Twenty pairs Texas dressed boots, in sizes 5-9½, D soles, screw-nailed white bottoms, sole leather insoles.

Sixty pairs men's brogans, ½ double sole, 5 to 9, 1½, 1½, 1½, 1½, 1½.

Twelve pairs men's calf pioneer boots.

Plaza boots, ½ double sole, burnished shank, 5-9; 19 inches.

Twenty-four pairs veal calf imperial brogans, pump sole, 5-9.

Fifty pairs kip polkas, 2-5, P.-side, low cut, nailed shanks.

Sixty pairs kip brogans, ½ D sole, 1-5, 1½, 1½ to 1½.

Twenty-four pairs calf brogans, double sole, 1-5.

Boy's kip boots, ½ double sole, braced seams, 1 to 5, acid burnished shank.

Thirty pairs women's imitation glove calf polkas, black shank.

Twenty pairs, brogans (P), calf, ½ D sole, 6-10, oak bottom, fancy shanks, Scotch edge.

Thirty pairs imitation glove-calves polish.

Thirty pairs misses buff polish, P. S. style, 102, solid leather inner sole.

Men's sunset boots, 6-11½, P. S., 17 inches, saddle seam, half finish.

Women's bombazine gaiters (de puntilla), 2-5.

Men's shoes, 5 to 9.

Boys' shoes, 1 to 5.

Men's gaiters, 5 to 9.

Girls' shoes, 1½, 1½, 1½.

Ladies' leather gaiters, ½.

Ladies' gaiters (alepin), ½.

Ladies' slippers, ½.

Gaiters, ½.

Ladies' shoes, ½.

Girls' shoes, 1½, 1½, 1½, 1½.

American shoes are very generally used here, and would be sold more if the merchants here would sell them at a more moderate price. There is no competition here from foreign countries for the class or styles of boots and shoes manufactured in the United States.

Ready-made gaiters for men are not made as they should be. Two kinds of gaiters are demanded here—one of fine calf-skin, with good elastics, with leather single soles, not pasteboard, which would sell here for \$4 or \$5, and another kind of common leather, well made, with leather soles, pegged, which would sell for \$1.50 or \$2. Most of the ready-made boots and shoes from the United States are of inferior material, and loosely put together. The elastics are common, and the soles often made of pasteboard gummed together. Although they look very well when new, they are not reliable, and soon fall to pieces. Besides being of an inferior quality, they are complained of as being too heavy and clumsy, the soles too thick, and the heels too wide.

In the first place, to make a good quality, to charge a reasonable price, to appoint an agent here to make consignments to the principal dealers here, to give long credits, or to establish a branch house.

Three years ago F. Tenney & Son, of Boston, sent an agent here with samples, but they were too heavy. He asked four months' time. He did not sell any. The boots and shoes imported here are brought from San Antonio, Tex. I would here remark that the merchants in San Antonio understand better this market than manufacturers at the north.

CHARLES WINSLOW,  
Vice-Consul.

UNITED STATES CONSULATE,  
Guerrero, Mexico, August 15, 1885.

## ACAPULCO.

REPORT BY CONSUL SUTTER, JR.

## LEATHER.

Leather of all descriptions enough for home consumption is tanned and prepared throughout the Mexican Republic.

In some parts of the country excellent leather, comparing favorably with foreign manufactures, is produced. In Tierra Caliente, the north-western part of the State of Guerrero, there are some important tanneries, furnishing sole and heavy upper leather, as well as kips and calf-skins of good quality. Smaller establishments of the same kind are found in many places throughout this consular district, though their product is of inferior quality.

The States of Oaxaca, Pueblo, Morelos, Mexico, and Michoacan, adjoining this State (of Guerrero), produce the same kinds of leather in abundance.

Hides and skins are abundant in this country. The surplus not consumed is exported. Dry cattle-hides, delivered at the port of Acapulco, are sold at present at 10 cents per pound; dry deer-skins at 25 cents per pound; goat-skins, 12 cents per pound. These prices fluctuate, being governed by the demand in foreign markets.

Expenses of storing, preserving, and shipping, as well as loss in weight, are to be added to these prices. Some 2,800 dry cattle-hides, some 16,000 pounds deer-skins, and 5,000 pounds goat-skins are exported yearly through the port of Acapulco.

A stringent bark, excellent for tanning, called "timbre cascalote," "encino" (oak), "cascarilla," "huamuchil," and others are abundant.

There are no means of ascertaining the exact amount of leather manufactured in this consular district; it is estimated, however, that some 30,000 cattle-hides are tanned every year. Comparatively few people use shoes, but in the absence of any wagon-roads, riding and pack-saddles are articles of the utmost necessity.

## IMPORTS.

The only kinds of leather imported are:

(1) The finer qualities of foreign calf-skins, merely blacked or glazed, which sell, according to quality, from \$32 to \$48 per dozen.

(2) The finer qualities of morocco leather sell from \$16 to \$20 per dozen.

A small amount of these articles consumed in this consular district is brought from the city of Mexico. Nothing in this line is ever imported here, either from the United States or from other countries.

I have no opportunity of comparing American leather with the manufactures of other countries, but believe that American leather of all kinds would suit the market quite well, if it could be furnished at the prices of the home manufacture, which, however, is impossible, owing to the higher first cost of hides and skins in the United States, as well as to the high protective import duties.

## BOOTS AND SHOES.

In my opinion scarcely one third of the population of the Mexican Republic consider boots and shoes to be an article of daily necessity,

the climate permitting people to go barefoot or to protect the feet merely with sandals consisting simply of a piece of sole leather tied to the foot with narrow strips of leather. Thus the population wearing boots and shoes every day is probably reduced to three millions.

In this consular district there are no shoe factories; only shoemakers working alone, or hiring but few men or women.

The better classes of boots, gaiters, and shoes are brought from the cities of Mexico, Puebla, and Oaxaca.

In all the larger cities in the Republic there are factories which, using American sewing-machines as the only machinery, furnish at reasonable prices a plentiful supply of well-made boots, gaiters, and shoes for ladies' and men's wear. All styles and fashions of American or European manufactures are readily adopted.

No boots or shoes are ever imported here, either from the United States or from other foreign countries.

The difference in the cost of the material in favor of the Mexican home manufacture and the high protective import duties stop most effectively all importations.

#### MISCELLANEOUS.

I inclose average prices current of Mexican home-manufactured leather and leather ware, furnished to me by competent merchants of Acapulco.

JOHN A. SUTTER, JR.,  
Consul.

UNITED STATES CONSULATE,  
Acapulco, May 11, 1885.

#### *Average prices current of Mexican home-manufactured leather and boots and shoes.*

Sole leather, according to size and quality .....	per hide..	\$6 00 to	\$9 00
Leather, prepared and used for coarser work, such as pack-saddles, a. s. f. ....	per hide..	6 00	7 00
Leather, kips, tanned in "timbre," dressed for leather-ware, such as riding-saddles, upper leather for common boots and shoes, a. s. f., per hide .....			5 00
Leather, white, dressed with milk, alum, and salt .....	per hide..		8 00
Sheep and goat skins, dressed in "cascalote" or "timbre" ....	each..		62
Sheep and goat skins, dressed in morocco leather, different styles ..	do...		1 00
Sheep and goat skins, dressed in morocco, glazed, according to quality .....	each..	2 25	3 00
Calf-skins, according to quality or size .....	do...	1 50	3 00
Buck-skins, dressed, soft .....	do...	62	1 00
Boots for men .....	per dozen..	48 00	120 00
Gaiters and shoes for men .....	do...	15 00	60 00
Gaiters and shoes for ladies .....	do...	9 00	36 00

Terms of payment, cash or short credit. Mexican silver dollar=\$0.875 United States gold.

#### LA PAZ.

#### REPORT OF CONSUL VIOSCA.

#### LEATHER.

Leather industries in this peninsula are limited to the rancheros or cattle-raisers. They prepare in the old rough style of making sufficient leather for the consumption of their rural pursuits of life.

Hides and skins for tanning are naturally used from the native production; calculated value of the material at the spot is eight cents a pound. Hides and skins are quite an important article for export in this country. The shipments to the United States and Europe during the year 1883 and 1884 amounted to 26,450 pieces; market value \$48,800.

The market cost of exported hides is 12 cents a pound, and 50 to 75 cents for each deer or goat skin.

The imports of leather into this country during 1884 were :

From—	Pieces.	Value.
United States:		
Sole leather .....	236	\$4, 826 00
France:		
Dressed calf-skins .....	2, 250	6, 750 00
Goat-skins or chagre .....	2, 500	6, 250 00
England:		
Sole leather, calf-skins .....	2, 180	5, 670 00
Total from foreign countries .....		23, 496 00
Sinaloa, Mexico .....		16, 000 00
Guaymas, Mexico .....		4, 200 00
Total imports .....		43, 696 00

Sinaloa and Guaymas provide only sole leather. The market value is \$12 for the first class, \$10 for the second class, and \$7 for the third class. English leather is considered inferior in quality to the French.

The above data show the superiority of the American sole leather over any other kind, due notice being taken of the difference in price.

The only means for a more extended introduction of American leather, in my opinion, depends exclusively on competing with the foreign as well as the domestic material of this country; but this seems impossible while such enormous duties on leather exist.

The following may be named as importers of leather: Messrs. G. Rivera, successors; Cabezud & Co.; P. Hidalgo & Co., Gonzalez & Ruffo; Cota y Pelaez; Juan Hidalgo & Co.

#### BOOTS AND SHOES.

Considering the limited number of inhabitants of the peninsula and the habits of the lower classes of Mexicans, most of whom go barefoot, the natives here are more civilized in dress than the rest of Mexicans. This is the reason why the consumption of boots and shoes in proportion to population is more extensive here than in the border States.

Three boot and shoe factories are in existence in La Paz. One is kept by Chinese, employing 28 Chinamen, and working machinery; it is constantly kept in operation. Two others, managed by Mexicans, employ 16 men and working some machinery. The three are supported by the city and the interior towns. Another Chinese factory, located in the mineral district and town of Triumfo, also manages to get along. There are, besides, several shoemakers' shops.

Besides the output from the factories just named, which is consumed in the interior towns, the imports of men's common boots and shoes from San Francisco, Cal., and of ladies' fancy shoes, gaiters, &c., from Europe and from the city of Guadalajara, Mexico, constitutes another considerable trade in this country, the gross amount of the market value of the imports for the year 1884 being \$42,000.

JAMES VIOSCA,  
Consul.

UNITED STATES CONSULATE,  
La Paz, Mexico, June 10, 1885.

## MONTEREY.

*REPORT OF CONSUL CAMPBELL.*

## LEATHER.

There are ten small tanneries in Monterey alone, which produce a considerable quantity of very fair leather.

The hides and skins used are obtained in this city and from the surrounding country, and cost at the tanneries 14 cents a pound for dried cow-hides, and from 25 to 32 cents a pound for goat-skins.

Tanning of leather and the manufacture of shoes, saddles, and harness are carried on quite extensively in Monterey and the principal towns in this State, but no leather is tanned or manufactured except for home consumption. The shoe and leather industry is merely an adjunct to other business, and, except in the manufacture of goods in shops and tanneries, not a trade by itself. There is no leather imported from the United States. Calf-skins and patent leather are imported from France.

The tanning materials used are oak bark, obtained in large quantities on the mountains near the city, and cascalote, obtained from San Luis Potosi. The latter is the best material for tanning.

Hides and skins are tanned whole, and bring the following prices: Sole leather, \$9 per hide; harness leather, \$8 per hide; shoe leather, \$7 to \$8; calf-skins, \$36 to \$50 a dozen, according to weight and size, and are all imported; goat-skins (domestic), \$8 to \$9 a dozen.

## BOOTS AND SHOES.

There is no factory system carried on in this part of Mexico, and no work done by machinery in the manufacture of boots and shoes, except a little stitching by sewing-machines. The principal work is all done by hand.

There are over two hundred shoemakers in this city, who work at home deliver their finished work every Saturday evening, and get a new supply of material for the next week. This class of workmen make nothing but common shoes. All workmen are paid by the piece or pair, and make about 75 cents per day. There are about fifteen shops in Monterey making a specialty of fine work, which sells readily at from \$3.50 to \$6 per pair. The merchants bring large quantities of common and a few fine shoes from the cities of Leon and Mexico. The shoes most generally sold by them cost from \$12 to \$18 a dozen pair. The sizes most in demand are: in ladies' shoes, from 12's to 1's, and gentlemen's, from 4's to 8's. In ladies' shoes, slippers and gaiters are the only styles made, and in gentlemen's shoes low-quarter and Congress gaiters are the only styles, except a few imported laced shoes, which are in but little demand. Both ladies' and gentlemen's shoes are made with very high heels and narrow shanks; but as a general thing fine shoes for ladies, gentlemen, and children are made to order, no shops keeping any stock on hand. There is but little demand for the coarse working-shoe so extensively used in the United States, as the lower classes wear sandals almost exclusively.

There are no boots or shoes imported from the United States; but a few fine shoes are brought here from France; but this demand is decreasing every year, as the Mexicans make almost as finely a finished shoe, and they are sold much cheaper than the imported.

The Mexicans have very small feet, with high insteps, and the principal faults found with American shoes and boots are (1) that they are too heavy; (2) the sizes are too large; (3) they are almost invariably too low in the instep.

On account of the dry and warm climate there are very few boots worn in this country, except very expensive riding boots, peculiarly made and profusely ornamented.

#### LEATHER DEALERS.

There are no houses which deal exclusively in leather or boots and shoes. The firms of Pedro Maiz & Co., Francisco Armendiaz, and Reinaldo Beradi are large and reliable grocery houses, dealing extensively in leather and shoes, but principally of Mexican manufacture.

ROBERT C. CAMPBELL,  
*Consul.*

UNITED STATES CONSULATE,  
*Monterey, June 15, 1885.*

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### MERIDA.

#### REPORT OF CONSUL THOMPSON.

#### LEATHER.

The many and varied uses of leather in this district make it an article of constant demand.

This demand, however, is mainly supplied by home production. Merida, the capital of Yucatan, has, in times past, been the grand center of the leather interests, not only of Yucatan but of the adjoining State as well.

The green or salted hides were sent to Merida, to be returned as tanned leather or to be exported to the United States, or Havana, Cuba.

This is now changed. Numerous tanneries have been erected in provinces hitherto dependent upon Merida, while steamship lines afford facilities for direct and regular intercourse with the outer world.

Outside of the cities the inhabited portion of this district consists of "haciendas" or plantations, once devoted entirely to cattle raising, now devoted largely to the production of henequen fiber. Each hacienda has still, however, a greater or less monthly output of hides. These hides are dried and salted. When in readiness to be disposed of, they are rubbed with a certain substance to prevent insect ravages, and pressed tightly in bales of fourteen hides each. They are then in readiness to be exported if need be.

New York takes the greater portion of the 6,000 hides that leave Yucatan monthly for foreign consumption. Havana takes just enough of the output to relieve New York from the charge of monopoly.

It is almost an absolute impossibility to give accurate information as to the amount of leather manufactured or consumed at this port, for no reliable statistics are kept.

The need of this port calls for a light, cheap leather, and this want the native cattle, ideal lean kine, are admirably adapted to supply.

There are no imports of American leather into this district, and the writer is by no means sanguine that such an importation can be made with any degree of success as matters now exist.



## BOOTS AND SHOES.

As regards boots and shoes, boots can be eliminated from the question at once. I have yet to see a pair in common use here. Shoes, and those of the lightest, are considered none too light for this warm climate.

A machine for sewing thick cloth and thin leather is in quite common use here, as is also a machine for pressing leather soles by passing them between two iron rollers. The writer notes the general stamp of a New York firm, J. K. King & Co., upon the last mentioned machine.

The above mentioned are the only machines that are used by the shoemakers of this district, and the use of these even are by no means universal. Notwithstanding the general primitiveness of the implements at his command, a decent workman will turn out a very creditable piece of work, and at a quite reasonable price.

## STYLES.

In this district there is a population of about 300,000 souls. Of this number perhaps one-third wear shoes. (The above fraction the writer believes to be in excess rather than otherwise of the number who do thus provide themselves.)

The remainder either go barefoot or else protect their feet by a device that has at least the merit of extreme simplicity and cheapness: A piece of hide or sole leather being procured, the unshod individual places his feet thereon, and with a sharp knife follows the contour of each foot. A string or leather thong is then produced, passed through the sole just made, between the big toe and its next neighbor, wound around the ankle, and again through the sole at the heel, thus confining it in place, and sending its Indian or Mestiza maker once more on his way happy and contented.

Most of the imported articles of footwear come from Austria and France, with the balance in favor of France.

These imports are of a light fancy shoe. The prime qualification for shoes of both sexes is that of lightness; that they be fancy and not too costly are the next requisites. The ever-present and impalpable lime dust is not favorable to the long life of a shoe, and the cost is thus made of some moment. The writer believes that a good canvas shoe, if not too costly, would be adapted to this district and might be worth the introduction.

The people of this district, of all grades and conditions, have small feet. The sizes common to most of the Latin race will be found best adapted to this district. Ladies' shoes are *all* high heeled, and are made of all materials used in such class of goods, if it be not too heavy. On holidays or fiestas the native and Mestiza women often appear with their stockingless feet incased in a pair of light-blue high-heeled French shoes.

## IMPORTS AND TAXES.

There are no leading importers of shoes. All of the merchants here that deal in dry goods and iron ware import more or less of their stock from France or Austria, and with their other orders they place one for one and perhaps even two cases of shoes. There are no large orders given and no special houses to handle this line of goods, as is the case with the North American trade.

In addition to the national taxes there are small local taxes of 2 per cent., 2½ per cent., &c., amounting in the aggregate to about 9 per cent. additional.

The States call for a tax based upon the one collected by the national Government, viz, 5 per cent. of the first or primal national tax.

The city of Merida claims a second 5 per cent.

The port then comes in for 2 per cent.; this is to be expended in improvements.

The second list of variable taxes then appear \$1 for every case, 2 per cent, &c.

In conclusion the writer will only add that while this report is not as encouraging as he would like to have it, it is as much so as he dare make it. Yucatan is a peculiar country geographically, geologically, and politically. To the United States perhaps more than to Mexico it has to look for its prosperity and commercial life.

The people of Yucatan, quiet and obliging when not imposed upon, keen and shrewd in business, are not slow to take advantage of a new idea or improved method, and if any manufacturers or firm after reading this report wish to make a trial experiment, the writer will make it his duty to see that all the principal merchants in this consular port, Campeachy as well as Yucatan, have an opportunity to personally inspect the samples sent.

EDWARD H. THOMPSON,  
*Consul.*

UNITED STATES CONSULATE,  
*Merida, May 17, 1885.*

## GUATEMALA.

REPORT BY CONSUL-GENERAL WHITEHOUSE.

### TARIFF.

	Per pair.
Men's low shoes (calf).....	\$1 50
Women's high shoes (calf).....	1 00

### LEATHER.

Dry hides and skins are exported in large quantities from Guatemala almost exclusively to the United States. The exports of hides for the year 1884 to the United States amounted to \$66,268.31. The importation of American leather is insignificant; in fact, nil.

Leather of a coarse quality is manufactured to some extent in the Republic, but all fine leathers, calf or patent, come from France or Germany. This preference is due to the lower prices prevailing in Europe, and to the fact that the French leather is more flexible and evenly finished. There is a large demand for patent leather (charol), the best of which comes from France.

The firms importing leather are: V. Matheu & Co. (also import shoes from France), F. Matheu & Co. (and French shoes), Aguirre & Co. (manufacturers), Ascoli & Co., Francisco Granados & Bros. (the largest manufacturers), Benito & Co., and Bertrand & Co. All the above import shoes.

### BOOTS AND SHOES.

The Republic of Guatemala numbers some 1,300,000 inhabitants; of these, perhaps 60,000 wear shoes.

There is but one large manufactory, that of Granados Brothers, and four or five small ones. The machinery and materials used are principally of European origin.

The consumption of the output is strictly local.

In the small importation of boots and shoes which exists (the tariff is almost prohibitory) the European are preferred to American goods, the objection raised against the latter being that they are dearer and not so stylish as those of French make.

Ladies' and children's shoes of California make are beginning to find purchasers, but do not amount to one-twentieth of the French imports.

Abrahamson, Rosenthal & Co. (an American firm doing a china and hardware business here) and Wolff Bros. import a few American boots and shoes as a specialty, which are sold to the railroad employés, engineers, and some few other Americans.

Boots are but little worn except for riding. The prevailing styles are those termed "gaiters." Men's gaiters are of medium and light weight only—sizes, 36–42 centimeters.

Ladies wear only the very thinnest calf and goat skin gaiters, also cloth and satin. Sizes, 30–38. These are generally made with patent-leather tips, and are high around the ankle. Buttons are preferred to lace, and should be showily machine embroidered. The above applies also to children's shoes. All such, with the small exception referred to, come from France.

Pegged shoes are little worn; all or nearly all are screwed, and a few sewed.

*Packing.*—Great care should be used in packing. On account of the damp climate shoes should be separately rolled in good tissue paper, and each pair again packed in solid but thin paper.

Leather should have a sheet of paper between each skin. Patent leather must be packed very dry, with paper interposed, and the boxes lined with zinc or tin.

H. REMSEN WHITEHOUSE.

*Consul-General.*

UNITED STATES CONSULATE-GENERAL,  
Guatemala, May 28, 1885.

## SAN SALVADOR.

REPORT BY CONSUL DUKE.

### TARIFF.

Leather .....	pound..	\$0 16
Boots .....	pair..	3 00
Shoes:		
Men's .....	do....	2 50
Ladies' fancy .....	do....	2 00
Cloth .....	do....	1 00
Children's .....	do....	50

### LEATHER.

There are in my consular district over twenty tanneries where hides are tanned by a very imperfect method. Each tannery turns out about twenty hides a month. A German tannery here turns out two hundred hides monthly, and this leather is considered of good quality. The

German house sells its leather all over the Republic at 25 cents per pound, while the leather turned out by the native process is sold at 18 cents per pound. The hides are brought from the surrounding villages and some come from Honduras. The price paid at the tanneries is \$2.50 a hide. Skins are very seldom tanned, as it is not customary to kill calves. Hog and deer skins are exported to the United States, very few being tanned in this country. The materials used for tanning are the barks of the following-named trees: Locust, mangle, and oak. The supply of these barks is abundant and is bought at 1½ cents a pound. Leather imports are small, the duty being 16 cents per pound. Leather has, however, been imported as an experiment, and sells very slowly, the American at 55 cents and the English at 45 cents per pound.

American manufactured leather is considered superior and much liked, no fault being found with it, but under the duty it costs too much to stand competition with the home made. Consumers in general prefer to pay a low price for inferior article. Although English leather is 10 cents per pound cheaper than the American, it is in little or no demand.

I have asked a few of the leading firms here if they would accept an agency for the sale of American leather, but they have refused, saying that they could not compete with the leather brought into the market, that very little would be sold, and that although a much better article, the cost is so high that the consumers would not pay it.

#### BOOTS AND SHOES.

Nearly all the boots and shoes imported come from England and France. In those countries they are made to suit the taste of the consumers here. The French style and make are most liked. Many importations are made of English shoes imitating the French style. These have found a ready sale, as not only are they a good counterfeit, but they are a better class of goods. American boots and shoes are better than either the French or English, but they are dearer, and the styles being different, the sale is slow.

A large amount, I may say the greater part, of the boots and shoes consumed are made in the country. It is impossible to give an estimate of the number made.

J. MAURICE DUKE,  
*Consul.*

UNITED STATES CONSULATE,  
*San Salvador, June 9, 1885.*

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### BRITISH HONDURAS.

REPORT BY CONSUL MORLAN.

#### TARIFF.

On leather and manufactures, 10 per cent. ad valorem.

#### HIDES.

The total amount of hides and skins exported from this district for the years 1882, 1883, and 1884 were \$6,565, \$4,496, and \$4,374, respectively. About one-half are imported into the colony from Honduras,

and all are exported to the United States, principally to the port of New York. The values of hides and skins in this market are as follows: Green or fresh hides, 5 cents per pound; wet salted,  $6\frac{1}{2}$  cents; dry,  $12\frac{1}{2}$  cents; deer-skins, 30 cents. A small quantity (about 2,000 pounds) of deer-skins are annually tanned in the colony for the purpose of making moccasins. The leather is very soft, and resembles the buckskin of the United States used for making gloves. It is always finished in the color the bark leaves it. The finished article is valued at about \$2.50 the skin.

The entire amount, as well as a small quantity that is imported from Mexico, Guatemala, and Honduras, is used in the colony.

#### TANNING.

The forests of the colony abound in valuable barks and woods suitable for tanning, among which may be mentioned the various species of mangrove, the red and white being best suited for the purpose. The mangrove is a tree that covers all the salt-water cays or islands and the swamps along the sea-coast and river banks. Under these circumstances it would seem strange that the tanning industry has received so little encouragement, and that the colony continues to export all the hides and import leather.

#### AMERICAN LEATHER.

The total amount of leather imported into the colony for the years 1882, 1883, and 1884 was \$18,878, \$3,111, and \$3,526, of which the United States furnished \$15,168, \$2,213, and \$2,338 for the foregoing years; the remainder, although almost entirely of French and German manufacture, being credited to Great Britain. Last year Mexico sent to this colony sole leather to the value of \$646; it was of uniform quality. The bulk of the American importations consists of sole leather, some few calf skins being imported, as well as a small quantity of harness leather. French calf and German patent leather is preferred to the American, as the finish is considered better and at the same time the leather is cheaper. The principal fault found with American uppers is that they are not carefully taken from the animal or finished, the skins, as a rule, showing many cuts.

I cannot suggest any means of increasing the leather trade of this colony with the United States, except more careful handling and better finish as well as lower prices.

The wholesale prices of leather in this market are as follows: American hemlock sole,  $37\frac{1}{2}$  and 40 cents per pound, if taking one side; in larger quantities, 35 cents; calf-skins, \$36 to \$48 per dozen. The foregoing prices of hides and leather are given in colonial or Central American currency, which is at a value of about 80 cents as compared with the American dollar.

There is at the present time but one house that imports leather to any considerable extent, although several of them buy hides for export and keep small stocks of sole leather. The firm referred to is the American firm of H. Lind & Co., importers of boots, shoes, and leather, who would be quite willing to enter into any agreement that would lead to an increase of business with the United States. They are at the present time the largest exporters of sarsaparilla, all of which goes to the United States. I am indebted to Henry Lind, of the above firm, for information regarding the prices of the raw material and finished leather as well as the different kinds imported and used.



## BOOTS AND SHOES.

2. There are no factories in this colony for the manufacture of boots and shoes, and the machinery used is limited to sewing-machines for sewing uppers and linings. There are a number of shoemakers who make mens' boots, shoes, and moccasins to order and do repairing, but they do not make shoes for ladies' and children's wear, almost all of which are imported from the United States. The total importations of boots and shoes into the colony were \$13,981, \$30,956, and \$35,158 for the years 1882-'83-'84, respectively, showing considerable of an increase in the total importations, which is caused by the black portion of the population taking more to the fashion of wearing shoes. Of the above amounts, there was imported from the United States \$10,764, \$25,608, and \$23,650, or about two-thirds of the whole. The other countries from which boots and shoes are imported are Great Britain, Austria, and France, the amounts from each country being small and confined to fine shoes and gaiters for ladies' and gents' wear. The imports credited to Great Britain for the past year were \$7,559, but the larger portion of this was made up of boots and shoes of French and Vienna make. The Vienna and French shoes are, as a rule, of finer finish and a trifle cheaper than the American make, especially the Vienna. There are but two qualities of boots and shoes used in this market, *i. e.*, the finest and coarsest, the medium quality not being in demand. All the coarser, heavy shoes and brogans are imported from the United States. For the Spanish and creole trade, there are imported a small quantity of cloth shoes, or gaiters, of various colors, blue and pink being the favorites. In sizes the medium and large are most in demand; the styles most in use are gaiters and balmorals, also low quarters and slippers for both ladies' and men's wear. I will here remark that in this country everything is called boots except slippers, what are known in the States as boots being known here as "top boots."

## AMERICAN SHOES.

I do not know that any faults are found with American shoes that would not be applicable to all countries, and as the trade is almost entirely controlled by the American product, I do not consider that the importations could be much increased. The only means that I could suggest would be to procure some samples of the European makes that suit the market and manufacture those styles. A good live agent of some of the manufacturers traveling this way would also stimulate trade, as well as furnish the desired information with regard to styles, credits, &c. There are a number of firms that keep small stocks of shoes in connection with other goods. They are Jacob Heusner, Steven Bros. & Co., C. Palmeyer, Beattie & Macdonald, S. Heitler, Brodie & Cuthbert, P. Lefebvre, and H. Gansz; but H. Lind & Co., mentioned above, is the only firm that makes boots, shoes, and leather a specialty.

3. The duties of this Government are for revenue only, and on this class of goods are ad valorem, being 10 per cent. on the invoice value, assessed alike on the products of all countries.

There are no complaints as to the manner of packing or shipping the American boots and shoes for this port, dealers, I believe, ordering the sizes that are in demand. The climate and insects are very destructive on leather goods, and it would be bad policy to import in large quantities. This is of advantage to the United States, as, being nearer to the colony, smaller stocks can be kept and replenished at short intervals. In conclusion I will state that any of the above-named firms will, I have no doubt, be pleased to open communication with the manufacturers of



boots, shoes, and leather with a view to buying from them if they can do so advantageously. I will also add that Belize being the metropolis for this coast of Central America as far south as Cape Gracias á Dios, and being in communication by steam and sail with the principal ports, it will be worth cultivating. Very little trade is done in these lines of goods except with or through Belize.

Belize is now well supplied with steamers to the United States, having two regular lines of steamers to New Orleans, one to New York, and one that has just started for Boston.

ALBERT E. MORLAN,  
Consul.

UNITED STATES CONSULATE,  
Belize, July 2, 1885.

## HONDURAS.

### REPORT OF CONSUL BURGHARD.

#### TARIFF.

	Cents.
Sole leather.....per pound..	3
Calf and other fine leathers.....do....	16
Boots and shoes.....do....	40

These duties are imposed on the gross weight of all merchandise, including the cases, boxes, barrels, &c., in which it is packed, without allowance of any kind.

#### LEATHER.

The condition of the leather industry is quite primitive and limited altogether to supplying the local demand.

Honduras is a cattle country, and ox-hides are abundant. They are sold by the price, and the price ranges from \$1 to \$1.50 per hide, according to the distance from the ports. Deer-skins are also abundant, and many are tanned in the country for making moccasins, slippers, &c.

The country produces all the materials used for tanning. The barks used are oak, mangrove, nauci or crabbo. uva or grape (a tree), and the cocoanut palm.

The common mode of tanning ox-hides is as follows: The hides are first put into a solution of lime, where they remain three days, or until the hair will rub off easily. They are then thoroughly cleansed, the flesh and hair removed by manual scraping, and afterward they are immersed and allowed to remain for twenty-four hours in a liquor called *pozol*, which is a mixture of sprouted corn and water made sour by fermentation. The hides are then washed again until all the acid of the *pozol* is removed, when they are ready for the vats. A large tree is dug out and into this vat the hides are put and covered with bark, which is first made as fine as possible by pounding. After remaining eight days the hides are taken out, washed, and beaten, and then returned to the vat with a fresh supply of bark. They are allowed to remain another period of eight days, when they are supposed to be sufficiently tanned, and are taken out to be stretched and dried in the shade. They are then ready for market.

The whole time consumed in converting a raw hide into what these people call sole leather is from twenty-four to thirty days.

The quantity tanned annually probably does not exceed 3,000 hides. This leather is all consumed in the country.

#### AMERICAN LEATHER.

All, or nearly all, of the imported leather is of American manufacture, and is considered far superior to the native. It costs at least four times

more than the home-tanned article. American leather is employed principally in the manufacture of the best class of saddles, which is an important industry in the interior. No faults are found with it, but on the contrary it merits universal praise and is held in high estimation. The trade in American leather will increase with the growth of the country, which is yet comparatively new and undeveloped. I can recommend no special means to promote it. There are no merchants who make a specialty of leather or of any other merchandise. All importing and trading houses keep an assortment of everything required in the market, including leather and boots and shoes.

#### IMPORTERS AND DEALERS.

The following-named merchants are reliable: Binney, Melhado & Co., Julia & Morrice, and Juan Lafitte, Truxillo; E. H. Flynn, B. Suarez, and G. Peyrefite, Ruatan; Robert Woodville, Utila; John T. Sinclair, Bouacca; W. C. Merriles, Puerto Cortez; Duarte & Fiallos, San Pedro Sula; Fortin & Bonilla and Izurher & Brother, Tegucigalpa; Carlos F. Alvarado, Juticalpa, and McNab & Jones, French Harbor.

#### BOOTS AND SHOES.

There are no boot and shoe factories in Honduras.

Sewing-machines are used to a very limited extent.

The class or styles most in demand are riding boots of medium weight with legs reaching to the knee; Congress gaiters for men and women, a few of cloth, more of leather, and some of patent leather, which are always salable. Neither lace nor button shoes are popular. They require too much exertion to suit a warm climate and lazy people. Low shoes and slippers for women are made in the country. Men's slippers are imported. The sizes for ladies are from number 2 to 4, and for men from 5 to 8. The French style is most in demand, high heels, narrow toes, and full instep. The above sizes and styles are for the Spanish Hondurans. The English creoles of the Bay Island and the Caribs of the coast require heavy shoes and large sizes. The women wear number 5 to 8 and the men from 8 to 12. Brogans are in constant demand for both sexes. Most of the imports of boots and shoes are from the United States. A few come from France and command the highest prices.

#### AMERICAN SHOES.

Many faults are found with American shoes. Generally the cheapest and most inferior qualities are imported. They have a good appearance, but no durability. The names of the manufacturers are not stamped on them.

There is no doubt that American manufacturers can find a ready market in these countries for boots and shoes of intrinsic merit and attractive styles, such as are sent to Mexico and Cuba. Such goods would at once take the place of the worthless trash which is now imposed upon these people.

As the duties are imposed on the gross weight of all merchandise, including the cases, boxes, barrels, &c., in which it is packed, without tare or reduction of any kind, manufacturers and exporters will at once see the importance of having their goods packed as light as possible, and of shipping them in bales and bags instead of cases and barrels, when it can be done with safety. Fine shoes should be packed in cheap trunks, as they can be taken out and weighed separately. The trunks would then be weighed and charged with a duty of only 6 cents per

pound, whereas, if the shoes are in cases, they cannot be taken out, and the duty of 40 cents per pound will be charged on the gross weight.

WM. C. BURCHARD,  
*Consul.*

UNITED STATES CONSULATE,  
*Ruatan, August 30, 1885.*

## PANAMA.

### REPORT OF CONSUL-GENERAL ADAMSON.

#### THE LEATHER INDUSTRY.

There is not within the State of Panama anything worthy of the name of a leather industry. There are no regular tanneries. It is believed that occasionally a few hides and skins are dressed or tanned by some native process in the remote districts, but I cannot obtain any reliable information as to the materials used. The quantity thus manufactured being very small is principally consumed where produced.

The value of the annual imports of leather in this district is estimated to be \$4,000, of which about one-fourth comes from the United States. Our leather is considered to be better in quality than that coming from other countries, and suits the market well, no fault being found with it. The dealers say that in the present condition of this country they cannot suggest any means for increasing the trade. Mr. N. de Obarrio, of Panama, is the principal person engaged in this business.

#### BOOTS AND SHOES.

The factory system of shoemaking does not exist here, nor is machinery used in making shoes within this district. In fact there are comparatively very few boots or shoes made in the State of Panama.

The greater part of the women's boots and shoes worn here are made in Vienna and Paris.

The sizes are numbered from 30 to 36, and the styles, as a rule, are those which prevail in those cities.

In the towns of this isthmus, when women dress to go out, they wear as dressy and fashionable shoes as they can afford to buy, while at home they may wear cheap slippers or go barefoot. The shoes for girls are almost invariably of the most pronounced high-heel type.

The boots and shoes for men and boys, town wear, are mainly low-cut shoes or gaiter boots, elastic sides, laced or with buttons, and of Parisian style. The higher-class employés on the canal works, such as engineers and overseers, use as a rule long-legged riding boots, cavalry or huntsman style. It has astonished me to see how few brogans and long boots are worn, even by the commonest negro laborers. These men earn high wages, they generally go barefoot while at work, and when not at work they disport themselves in Parisian boots, if they can find any large enough.

#### AMERICAN GOODS.

I have tried to convince dealers that the American brogan would meet a want of this market, but they say they have tried them without success.

The import of American boots and shoes is very small, for the reason, as dealers say, that comparing styles and quality of finish they can buy more cheaply in Europe.

Dealers here say that American shoes are usually too low in the instep. With this exception American styles can be selected to suit the market very well, and, as communication with New York is so very much quicker than with Vienna and Paris, dealers would gladly buy in our market if they thought they could do as well there.

The only way I can suggest to enlarge the American trade in boots and shoes with this country is for our manufacturers to come and discuss the business with dealers bringing samples of their goods, and by comparing notes, learn all the small points of the trade, which only a specialist can understand the importance of.

The largest dealers in these goods on the Isthmus of Panama are Messrs. Alfaro Hermanos (Alfaro Brothers), who have kindly shown me their invoices and goods and afforded me facilities for studying the matter.

No duties are levied on imports of any kind within the State of Panama. In those States wherein duties are collected, they are assessed alike on the manufactures of all countries.

The manner of packing and shipping goods herein mentioned, as practiced at present in the United States, is not objected to.

THOMAS ADAMSON,  
*Consul-General.*

UNITED STATES CONSULATE-GENERAL,  
*Panama, September 19, 1885.*

## WEST INDIES.

### CUBA.

Consul William P. Pierce, Cienfuegos.  
Consul-General Ramon O. Williams, Havana.  
Consul John C. Landreau, Santiago de Cuba.  
Commercial Agent Joseph A. Nunez, Cardenas.

### TARIFF.

The Cuban custom-house duties are divided into three columns, to wit: (1) Spanish products in Spanish vessels; (2) Spanish products in foreign vessels; (3) foreign products in Spanish vessels; (4) foreign products in foreign vessels. But by reason of commercial agreements and treaties the products of and articles proceeding from the United States may be entered at the custom-house under the third column, even though they be brought in American, French, or German vessels, but not when brought in Norwegian or British vessels.

The following represents the four columns, respectively, of the tariff of the Cuban custom-house on leather and shoes existing in 1882, but it must be borne in mind that, under the operations of a Spanish law, the first and second columns and the difference between the third and fourth columns are being gradually abolished.

The law graduates the reduction as follows:

	Per cent.
From July 1, 1882, to June 30, 1883 .....	5
From July 1, 1883, to June 30, 1884 .....	5
From July 1, 1884, to June 30, 1885 .....	5
From July 1, 1885, to June 30, 1886 .....	10
From July 1, 1886, to June 30, 1887 .....	10
From July 1, 1887, to June 30, 1888 .....	10

	Per cent.
From July 1, 1888, to June 30, 1889 .....	10
From July 1, 1889, to June 30, 1890 .....	15
From July 1, 1890, to June 30, 1891 .....	15
From July 1, 1891, and thereafter .....	15
	<hr/> 100

It must also be borne in mind that an additional duty of 25 per cent. on the amount of the specific duty is also collected.

The following is the Cuban custom-house tariff as to leather and shoes, subject to additions and modification as above set forth.

No. of tariff.	Articles.	Basis of col- lection.	First.	Second.	Third.	Fourth.
157	Hides or skins, precious or luxurious, such as of lion, tiger, leopard, bear, ermine, seal, and others analogous, ad valorem .....		10 p. ct.	23 p. ct.	29 p. ct.	37 p. ct.
158	Hides, ordinary and dried, with the hair of asses, horses, cows .....	kilos.. 100	\$2. 350	\$4. 700	\$6. 250	\$8. 350
159	Hides, green, ordinary .....	do 100	. 800	1. 550	2. 100	2. 800
160	Hides, tanned ("suela's corregel"), sole leather, or English, or like English sole leather .....	kilos.. 100	3. 500	7. 050	9. 400	12. 550
161	Hides of varnished leather ("cuero's suela charalada"), soft or sole leather, hides, either varnished or patent .....	kilos.. 100	7. 850	15. 650	20. 850	27. 800
162	Split sole leather without "flor" (upper layer or best part) and without varnish, in fragments, for industrial purposes .....	kilos.. 100	6. 750	13. 500	18	24
163	Hides or skins of sheep and goat, haired .....	do 100	5. 850	11. 750	15. 650	20. 850
164	Hides or skins, tanned, as "vaquetas" (supple cow-hide leather), "badanas," and "marroques" (both of these are supple sheep-skin leather) .....	kilos.. 100	9. 800	19. 550	26. 100	34. 800
165	Hides or skins, superior to the above (supple-tanned leather, "moscovias"), calf skin, black, and satineted kid, and shagreen .....	kilos.. 100	18. 600	37. 150	49. 550	66. 100
166	Skins, varnished, as "bufalo" (heavily varnished, used for leggins and carriages, &c.), and calf-skin (patent calf for shoes, &c.), and others not varnished, as hog and chamois .....	kilos.. 100	29. 250	58. 500	78	104
SHOES AND GAITERS.						
167	Hemp shoes, sanded and closed .....	dozen pairs.. 1	. 162	. 324	. 432	. 576
168	Boots, for horsemen and coachmen, with or without luster .....	dozen pairs.. 1	5. 400	10. 800	14. 400	19. 200
169	Gaiters, with elastic or buttons, of all classes, for men .....	dozen pairs.. 1	1. 890	3. 780	5. 040	6. 720
170	Gaiters, of silk, or the principal part of silk, for women .....	dozen pairs.. 1	2. 820	6. 486	8. 178	10. 434
171	Gaiters of the other classes for same, with adornment, although these be of silk .....	dozen pairs.. 1	1. 620	3. 240	4. 320	5. 760
172	Gaiters, without adornments, and to button or to adjust ("lejer," "Barmorales," and "broques") .....	dozen pairs.. 1	1. 080	2. 160	2. 880	3. 840
173	Shoes (in contradistinction to gaiters), or olumay shoes, pumps, and slippers of all classes, for men and women .....	dozen pairs.. 1	. 678	1. 350	1. 800	2. 400
174	Gaiters and shoes, for boys, up to 23 centimeters (French points 35), and for girls, up to 20 centimeters (French points 30), will pay according to class, as classified above, with a reduction of 50 per cent.					

NOTE.—Hides and sole leather are so called when their original thickness is preserved; also when split their several layers are called hides and sole leather, excepting the upper layer or "flor" part. This part, preserving the epidermis, will be considered as skin ("piel") whatever its preparation or form may be, whether as "becerro" (calf-skin), "bufalo" (bright varnished leather used for carriages, leggins, &c.), "charoles" (patent leather), "chagrines" (shagreened leather), or other denominations, and will pay according to the tariff corresponding to the same.

Consul Laudreau (Santiago de Cuba) speaks of charges for "stamped paper," which practically doubles the duties as named in the tariff.

**CIENFUEGOS.***REPORT OF CONSUL PIERCE.*

The territory known as the jurisdiction of Cienfuegos embraces this city and surrounding country and constitutes a fair criterion by which to judge the wants and capabilities of the Island of Cuba in respect to this trade and industry. The quantities of leather articles consumed in the jurisdiction, saddles, harness, shoes, &c., respectively, may be estimated by an average community of same population in our Western States. Heavy hauling and plowing being done principally with oxen, less leather harness is required; the shoes consumed are of less weight, and gloves are not worn.

**LEATHER INDUSTRY.**

There are several tanneries in this district, but there appears to be nothing modern about any of them. No machinery is used, and the bark used in tanning is ground with a large round stone turned on its edge and pulled around a circle by a mule. The business is substantially limited to tanning bull, ox, and cow hides, and occasionally sheep-skins, but the amount of Cuban-made sheep-skin leather consumed in the jurisdiction is quite insignificant, while probably 80 per cent. of the sole leather, and substantially all of the cow-hide (*vaqueta*) leather is Cuban made. None of it is split. Bull and ox hides, green, usually sell at about \$4, while green cow-hides sell at about \$3 apiece.

The Cuban leather is used almost exclusively in making and repairing saddles and harness and shoes.

**TANNING MATERIALS.**

I am told that the island abounds with tanning barks and leaves, but the principal used is the "mangle" (mangrove) bark, the "peralejo" bark, for sole leather (bull and ox hides) and the "pataban" leaf for "vaqueta" (cow-hide) which leather is the characteristic Cuban leather, and used principally for the uppers of coarse shoes. "Peralejo" bark gives a bright rosy color. It is better adapted than mangle for tanning leather for the soles of fine shoes and for saddles.

"Mangle" bark is principally used in tanning leather. It is believed to be richer, requiring a less quantity, and tans the hide in less time than any other bark. It swells the hide a great deal and gives a high reddish color, though less bright than the peralejo gives. It imparts, however, a very disagreeable odor to the leather. This bark is found in abundance in a cluster of keys on the south coast of the island, known as "Laberinto de las doce leguas." The Government monopolizes the right of taking it out. The trees from which it is stripped are very large and are believed to be hundreds of years old. It is shipped from Zaza to this place and to other points of the island. The price at Zaza is \$1.30 per hundred pounds, "free on board," put up in bags of 200 pounds each, somewhat pounded (not pulverized) to lessen the bulk. It is heavier than other barks. I would suggest to those concerned to write to Mr. S. R. Ballesta, United States consular agent at Zaza, for any further information they may desire concerning this bark, and from all that I have been told about it I think it may pay our tanners to make special inquiry about it with a view to using it.

The "pataban" tree, from which the leaf is gathered, grows near the



coast, where the fresh and salt water mix. The leaf can only be used soon after it is gathered. After it dries a little it turns black and loses its valuable properties. For this reason it cannot be used with success in interior places. I am told that in the interior sumac is used in its stead. The tanners along the coast who are able to make use of pataban seem to greatly prefer it to sumac. I am told it softens the leather more than sumac does and makes it more durable. It can be obtained at 2 cents a pound. Flour and sour "yuca" are used as ingredients. Sole leather may be tanned with "peralejo" bark in sixty days and with "mangle" bark in from thirty to forty days, and "vaqueta" leather may be tanned with the "pataban" leaf in from thirty to forty days.

LEATHER TRADE.

Outside of saddle and harness making and repairing, and of shoemaking and repairing, the amount of leather consumed is too small to be estimated. It is estimated that 30 per cent. is consumed in the former industry, while 70 per cent. is consumed in shoemaking and repairing.

The following table will give a general idea of the trade in respect to the proportionate amount in point of quantity of each kind of leather consumed and the percentage, in its bearing to the total consumption, furnished by each country, with the price thereof. The tables of estimates of this report, made out of more or less conflicting data, obtained from various sources of inquiry, are only intended to give a good general idea of the trade, though they do not embrace small and isolated quantities not recognized as a substantial factor in the market.

Shoemaking industry (70 per cent.).

Kind of leather.	Per cent.	Country.	Price.	Per cent.
Sole leather.....	40	Cuba.....per head..	\$6 50 to \$7 50	85
		Mexico.....do....	6 00 to 7 00	15
'Vaqueta' (cow-hide).....	80	Cuba.....do....	5 00 to 7 00	100
Vaqueta mayorquina (kip) .....	4	Spain.....per dozen..	32 00 to 40 00	100
Sheep and other cheap skins.....	13	Cuba.....do....	9 00	5
		Spain.....do....	7 50 to 9 00	95
Grained kid and other fine skins...	6	France.....do....	28 00 to 30 00	85
	6	Spain.....do....	15 00 to 17 00	15
Calf-skin .....		France.....do....	28 00 to 34 00	70
	1	Spain.....do....	26 00 to 32 00	30
Patent leather .....		France.....do....	25 00 to 36 00	100
	100			

Saddle and harness industry (30 per cent.).

Kind of leather.	Per cent.	Country.	Price.	Per cent.
Sole leather.....	70	Cuba.....per head..	\$9 00	80
		France.....do....	\$28 00 to 30 00	15
		Ameirca.....do....	16 00 to 18 00	5
Sheep and other cheap skins.....	20	Cuba.....per dozen..	9 00	50
		Spain.....do....	7 50 to 9 00	40
		France.....do....	16 00	10
Buffalo (varnished).....	7	America.....per foot..	24 to 28	100
Patent leather.....	3	America.....per head..	11 00 to 13 00	100
	100			

Almost all the fine skins come from France and almost all the common from Spain. The fine skins from Spain are usually "imitations," being much inferior to the French kid, and sell, as indicated above, for little more than half as much as the French. Large quantities of cheap skins come from Spain, of different colors, principally what are called "badanas," for saddle-making and "tafilete," for common shoes, for women. Both are thin sheep; the latter same as morocco.

### SOLE LEATHER

American sole leather sells too high to be used here for shoes. It costs about twice as much as the Mexican, and though it will probably last about twice as long, this is no great recommendation to shoemakers. Half-soling shoes is part of their business. Besides it has been suggested that American sole leather for Cuban shoes is usually more durable than is necessary, for the season that it lasts longer than the material usually used for the uppers of Cuban-made shoes. The Cuban sole leather is used in making coarse shoes, while the "Campeche" (Mexican) sole leather is used for fine shoes. This is not because the Mexican sole leather is better than the Cuban, for it is generally alleged to be less durable, but because it costs somewhat less and is very much better looking. The Cuban sole leather for shoes is of a dark reddish color, while the Mexican is of a whitish color and shoemakers can polish it up to a better advantage than they can the Cuban. Neither of them will begin to compare with the American sole leather, but the average American sole leather can never take their place in this market for shoemaking purposes at the present prices.

For saddle and harness making American sole leather has some standing in this market. It seems to stand between the French and the Cuban. The Mexican is not used for saddle and harness making, and the Cuban sole leather for saddles and harness, "planchada," is quite different from the Cuban sole leather for shoes; it is differently tanned and much better, and is too costly and too thick for shoemaking purposes. It is proper, however, that I should emphasize one objection to American sole leather, made by the leading saddle and harness maker of this city, that it is too thin around the borders of the hide, that there is a great deal of waste around the outside, which, when cut off, leaves the hide too small. This objection, coming from a man who seems to be more than willing to favor American trade, should be duly considered. Though it is not known for what reason, if any, American leather should be more defective in this respect than any other—and in point of fact it may not be—yet I am satisfied it is regarded as faulty in this market.

### PATENT LEATHER AND VAQUETA.

The French patent leather seems to be used entirely for shoemaking purpose, while only the American patent leather is used in the saddle and harness making industry. What is called here "buffalo" comes almost entirely from the United States. In the foregoing table I have placed it in the saddle and harness industry, but it seems to be principally used for leggings and repairing carriages. American split leather is not used in the shoemaking industry.

The Cuban vaqueta (cow-hide) leather is used in great quantities for making coarse, cheap shoes. It is used for straps and similar purposes

in the saddle and harness industry. The Spanish "vaqueta mayorquina" appears to be nothing more than our kip, midway between calf-skin and cow-hide. It comes from Spain and is used in the shoemaking industry.

#### LEATHERS COMPARED.

In getting up this report I have talked with many people of different opinions, and I find it quite difficult to form a satisfactory opinion in some respects, and what I now say is somewhat more speculative than what precedes, and in this connection I speak of leather generally, both before and after its manufacture into shoes and other articles. The American leather, as a rule, may have more strength and body, and seems to be generally regarded as more durable than any used here in the way of shoes, but the preponderance of belief is that it is harder and drier than is usual with European leather, and this notwithstanding the fact that it comes over less salt water than the leather from Europe. This defect is believed to be incidental to its tanning. The pataban leaf, before referred to, is used by tanners here to soften cow-hide leather, but unless some way could be devised whereby the properties of this leaf could be preserved until it could be transported and used in the United States it would be valueless to American tanners. It is highly important that shoe leather should be soft and yielding to the action of the foot in this climate. The feet of the people here are probably more tender, requiring softer shoes, and, indeed, the general constitution and taste of the people seem to tend more to softness and delicacy than in colder climates.

Leather generally is subjected to a severe trial in this country. The Cuban atmosphere is warm, damp, and very salty. The sea at Cuba is much saltier than inside the Gulf Stream at Boston. Aside from the atmosphere a large quantity of back and tide water in the numerous Cuban streams on which many of the plantations are located is of a briny character. All this, added to the fact that feet here emit a continuous heat, winter and summer, to shoe leather, tends to harden and injure leather. Leather must be closely looked after to guard against the effects of mildew. These climatic influences, I presume, are more or less aggravated or moderated by the barks and ingredients used in tanning, though I have not heard it claimed that American leather is any more vulnerable in this particular than corresponding leather tanned elsewhere, more than the general observation that oily leather is better suited to the climate than dry leather, and that the American leather is less soft and oily than other kinds. But notwithstanding this American shoes are believed to last longer than any other. In this connection I should add that many of the skins from Spain are of a light color, and the Cuban vaqueta and Spanish kip are of a light color, and calf-skin shoes are sometimes worn with the light side outward. Shoe blacking is not used on any of this leather, and it is understood not only to be better suited to the climate by being less of a conductor of heat but also by resisting the climatic influences better.

The French leather is believed to unite elegance and durability more than any other, and this, too, is attributed to the tanning. The leading shoemaker of this city has expressed to me the opinion, and this is confirmed by a shoemaker from the Canary Islands, that the superiority of the output of the French tanneries is on account of the water and climate of France, and not on account of any superiority of French material or French skill.

## THE SHOE INDUSTRY.

The factory system is not in operation in this jurisdiction, though there are a great many shoemakers and they make a great many shoes. Outside of small hand-machines, no machinery is used. In point of number about 45 or 50 per cent. of the men's shoes consumed are Cuban-made, and also about one-fifth of those for women and children. They are, however, for the most part very common, and are made in the jurisdiction. The very common ones are principally made out of Cuban vaqueta (cow-hide) for men and Spanish sheep-skins (tafiletes) for women. A somewhat better shoe is made of Spanish kip, but probably eight times as many are made of the Cuban vaqueta. Some very elegant shoes, however, are made of the best French calf-skin and other fine French leather. These are made to order, and are generally a good fit and present an elegant appearance. They sell usually from \$6 to \$8.50 a pair. But the low-cut "vaqueta," heelless, for men, and the low-cut tafilete, heelless shoe and slipper, for women, are the shoes of the country. The former sells usually from 80 cents to \$1 a pair, and at from \$7 to \$9 per dozen; and the latter sells usually at 50 or 60 cents a pair, and at from \$4 to \$5 per dozen. The slipper is usually worth a little less than the shoe—not more than \$1 a dozen less. Probably half the slippers consumed are Cuban-made. A high-cut Cuban vaqueta is also made, and a very much better shoe, but probably nine times as many low-cut vaqueta are consumed. A hide of vaqueta leather will make usually from twenty-four to thirty pair of low-cut shoes without heels, and an extra large hide even more, and a shoemaker will make from six to eight pair per day. The price of the low-cut vaqueta shoe somewhat varies according to the locality, but in this market the average cost may be put at \$8 a dozen, or 67 cents a pair, as follows:

One hide of vaqueta, sufficient for two dozen pairs.....	\$6 00
Sufficient sole-leather, thread, &c., two dozen pairs .....	4 00
Cost of making, 25 cents per pair, the workman furnishing his own tools, room, and boarding .....	6 00
Total .....	16 00

This sum (\$16) of Spanish coin is equal to \$14.91 United States coin; and I beg to observe that the prices and weight given in this report are declared in Spanish coin and weight—\$1 Spanish being equal to 93.2 United States currency, and 100 pounds Spanish to 101.44 pounds United States weight.

## THE SHOE TRADE.

The following table will give a general idea of the shoe trade of this district. It divides the shoes consumed into three general classes: (1) The better quality; (2) the medium quality; (3) the inferior quality. The total quantity from each country may be relied on as substantially correct; but it is well to allow considerable for differences in judgment as to what constitutes the difference between a first and second class shoe and between a second and third class shoe. For instance, there are very few, if any, very fine shoes or very coarse shoes for men from the United States. The great bulk of those that come are of a full average quality of trade shoe, suited to the daily use of commercial people, and might with almost or quite as much reason be placed in the first class instead of in the second class. The finest shoes made in the United States are too costly, and the American brogan is too heavy for this market.

*Men's shoes consumed in the district of Cienfuegos.*

Country.	Per cent.	Percentage of class.	Percentage of kind of leather.
Cuba .....	45	First class, 15 per cent.; second class, 35 per cent.; third class, 50 per cent.	Calf-skin, goat, kid, "chagre" (sheep), and imitations, 80 per cent.
Spain .....	40	First class, 20 per cent.; second class, 60 per cent.; third class, 20 per cent.	Cuban "vaqueta," 45 per cent.; Spanish kip, 10 per cent.
America .....	15	First class, 15 per cent.; second class, 70 per cent.; third class, 15 per cent.	Tafletes and badanas (thin sheep), 10 per cent.; hemp shoes, 5 per cent.

*Women's shoes consumed in the district of Cienfuegos.*

Country.	Per cent.	Percentage of class.	Percentage of kind of leather.
Cuba .....	20	First class, 5 per cent.; second class, — per cent.; third class, 95 per cent.	Kid, calf-skin, and other fine skins and imitations, 50 per cent.
France .....	50	First class, 30 per cent.; second class, 50 per cent.; third class, 20 per cent.	Tafletes, badanas (light sheep leather), 25 per cent.
Spain .....	20	First class, 30 per cent.; second class, 30 per cent.; third class, 40 per cent.	Serge, including all kinds of cloth, 20 per cent.
America .....	10	First class, 20 per cent.; second class, 60 per cent.; third class, 20 per cent.	Cow-hide and kip, 5 per cent.

*Children's shoes consumed in the district of Cienfuegos.*

Country.	Per cent.	For whom manufactured.	Percentage of class.
Cuba .....	15	Children eight years old and under, 50 per cent.	First class, 10 per cent.; second class, 30 per cent.; third class, 60 per cent.
		Boys over eight years of age, 25 per cent.	First class, 25 per cent.; second class, 40 per cent.; third class, 35 per cent.
		Girls over eight years of age, 25 per cent.	First class, — per cent.; second class, 50 per cent.; third class, 50 per cent.
France .....	15	Eight years and under, 30 per cent. ....	First class, 20 per cent.; second class, 45 per cent.; third class, 35 per cent.
		Girls over eight years, 70 per cent. ....	First class, 20 per cent.; second class, 40 per cent.; third class, 40 per cent.
Spain .....	35	Eight years and under, 20 per cent. ....	First class, 20 per cent.; second class, 60 per cent.; third class, 20 per cent.
		Boys over eight, 60 per cent. ....	First class, 20 per cent.; second class, 65 per cent.; third class, 15 per cent.
		Girls over eight, 20 per cent. ....	First class, 20 per cent.; second class, 60 per cent.; third class, 20 per cent.
America .....	35	Eight years and under, 40 per cent. ....	First class, 25 per cent.; second class, 50 per cent.; third class, 25 per cent.
		Boys over eight, 30 per cent. ....	First class, 25 per cent.; second class, 60 per cent.; third class, 15 per cent.
		Girls over eight, 30 per cent. ....	First class, 35 per cent.; second class, 55 per cent.; third class, 10 per cent.
	100		

I find some German shoes in the market, but not enough to take into account. The German shoe does not appear to be popular.

**MATERIAL.**

Most all the Cuban-made shoes, as already stated, are made of "vaqueta" (cow-hide) and "tafletes," inferior skins. The Spanish shoes embrace a very great variety, but usually of light material, and many of them of light colored leather. None but women's and children's shoes come from France, and these do not materially differ from those from



Spain. The American shoes appear to be principally of calf-skin and split leather. I think it quite likely that a good split leather shoe, combining lightness with cheapness, from the United States, would hold its own in this market after being introduced. It is much superior to the wishy-washy calf-skin shoe from Spain coming under the third class of the table. What would be called coarse heavy shoes in the United States are entirely unsuited to this country. The average shoe worn in the United States in summer will probably average heavier and coarser than the average shoe worn here the year round. There is usually very little difference between the shoe worn here in winter and in the summer. The American shoes found in this market will doubtless average lighter weight than the corresponding class worn in the United States, and yet those here are the heaviest in the market. The heaviest pair of shoes I found in one establishment was an American shoe. It was a gaiter, No. 43 (French measure), and weighed 2 pounds and  $1\frac{1}{2}$  ounces. It cost \$36 a dozen. It could not meet with ready sale to laboring people because of its price, and a majority of the purchasers of first and second class shoes would be less inclined to buy it on account of its weight. The weight of the large sizes first and second classes of men's shoes does not so fully correspond to the general tendency of the market when in excess of 1 pound 6 ounces low cut, and 1 pound 9 ounces high cut. Aside from the fact that the enervating influences of the climate favors a light shoe, the chief and very frequent diversion of the people consists in dancing. In coarse shoes the market is probably not so particular in this respect, yet the laboring people wear a very much lighter shoe here than in the United States. The coarse low-cut Cuban "vaqueta," which, as I have said, is the characteristic shoe of the country, weighs very light. I selected a large size pair (No. 12 Cuban measure), which weighed only 15 ounces. Coarse imported shoes weigh heavier. A dealer selected for me two pairs of shoes, a pair of low cut and a pair of gaiters, which he said was about the heaviest Spanish shoe he sold; the low-cut pair, No. 42, weighed 1 pound  $7\frac{1}{2}$  ounces, and cost \$25 a dozen. The gaiters weighed 1 pound  $8\frac{1}{2}$  ounces, and cost \$22 a dozen.

#### AMERICAN SHOES.

The extra weight of American shoes may be owing to superior compactness and body of the leather, which may render them more durable than any other. The opinion is generally entertained here that American shoes last longer than any other. But the weight of the American shoe in this market is not a paramount objection. I have found some American shoes that weighed very little, if any, more than would suit a large class of purchasers, aside from the price. The objection to American shoes that is usually set up, and which seems to be the one most plausible, is their stiffness. If they were softer and more yielding to the foot they would be much more acceptable. This objection applies both to the material and to the way they are made. The counter or hind part is too hard. People walk a good deal here, but they pick their time and road. They walk on smooth ground, and are not so apt to run down their shoes. The shanks, too, of some American shoes are complained of as being uncomfortable to the Cuban foot, on account of its hard and unyielding character. I am told that these are sometimes braced up with metal, which should never be put in a shoe destined for the Cuban market. In this connection it may also be observed that cloth-lined shoes from the United States are usually lined with cotton,



while those from Spain usually with linen. Dealers refer to another thing as prejudicial to the reputation of American shoes, though it may not affect their real merit. The American men's shoes, unlike the Spanish and Cuban, are machine made, with the soles sewed from without and not from within, and after a few days of wearing the seam of the sole shows itself. This is as yet regarded with more or less distrust. Referring to what I have already said as to the effect of the climate on leather, I will add that soft oily leather is preferred, and fine-grained leather seems to be as a rule as popular or more so than calf skin. Indeed the men's shoes of every class from Spain are much softer and more agreeable to the touch than the American. Whether this is owing to the tanning or to the composition put on the leather after being made into shoes I am unable to say. They have a dead, shineless appearance. The bright thick paste or composition on the American shoes causes the storekeeper much less trouble than the grease (or whatever it may be) in the Spanish shoe. It does not mildew so readily. But the fact that the Spanish shoe mildews so readily causes the dealer to be continually cleaning it up with an oily preparation, and this may be the chief reason why it always presents a glove-like feeling when thrown on the counter. The bright black paste on American shoes is not for this reason specially objected to by dealers, but some of them have expressed the opinion that it also serves to harden and dry the leather; at least it does not sufficiently soften the leather to appeal to the general taste of the market.

#### SHAPES AND STYLES.

There are not enough stylish shoes made in Cuba to have a distinctive Cuban style. The styles come from other countries. In the matter of ladies' shoes the French styles are consulted. With men's and boys' shoes, what is known as the American style (outside of the fine parlor shoes) meets with more general favor. This is much more the case now than formerly. Style or fashion takes a much larger range here than in the United States, and style is consulted in the make up of cheap shoes from Europe more than in the cheap shoes made in the United States. Mere novelty, which comes and goes with the seasons, attaches more particularly to ladies' shoes. At present the most stylish shoe is very high up behind and cut low down in front, showing the instep of the foot, laced with ribbon across the instep and ankle, and elaborately trimmed with ribbons. Ladies' shoes may be estimated, generally, as being somewhat more on the stilty Parisian styles than they are in the United States. Here, as there, the style used by married ladies is somewhat more conservative, and in the third or common class the matter of style is usually of little consideration, though probably of more consideration here than there. The popular taste is more inclined to unite "style" and "cheapness" than in the United States. There is a very decided tendency of the popular taste to favor the general construction of American shoes for boys and men. These shoes from Europe are much more on the conservative or American style than they used to be, and the great bulk of them come under what is now called the American style. This must be accepted, however, with some modification. The full American style, as worn in the United States, is somewhat too wide at the toe and shank, with too low and wide a heel. A shoe wide at the heel and toe and low in the instep is probably less comfortable on the Cuban than on the American foot, owing to differences between the

two, which I shall presently refer to. But I repeat that the stilted Parisian style is giving way to the more ample American style for a shoe for daily use, and this is particularly the case with shoes for men and boys. But these observations are only general. There is, as I have said, a greater latitude in the way of style here than in the United States. Shoes are worn of all colors and of all shapes; and though the black color and a conservative style greatly predominate, yet I have seen ladies walking the street and promenading in the plaza in white shoes, and I have seen gentlemen wearing shoes with such extravagantly high heels and narrow toes as would be apt to make them appear eccentric in the United States. But a very large portion of the shoes consumed in the jurisdiction are of a very common and cheap order, and of a plain style, or rather no style, without heels, and little or no difference between "rights and lefts." It may be estimated that 60 per cent of the men's shoes, 70 per cent of the women's shoes, and 25 per cent of the children's shoes consumed in the jurisdiction are low cut. A very large preponderance of the shoes from the United States, however, are gaiters. Of the low-cut shoe for gentlemen, those laced up with eyelets in front, called "corte ingles," sell more readily than those with ears lapped over the instep, called "corte salon."

#### SIZES AND DIMENSIONS.

By way of throwing further light on what I have already said, I will observe under this head that smallness seems to be regarded as quite a factor in the make-up of a pretty foot or shoe, and that while the American style of shoe for several years has been growing in general favor, yet there is more or less objection to it because of its enlarged appearance. Both the style and the material of the American shoe give to it this appearance as compared with a lighter material and more stilty style. Dress is generally more of an object here than in the United States, and people here dress the foot more with an eye to appearances. A very much larger percentage of poor people patronize barber shops, and consult "style and cheapness," instead of "substance and cheapness," in making purchases here than there, though they probably do this, under the pressure of the present hard times, less now than formerly. A large number of Spanish shoes seem to be got up specially to suit this branch of the trade. They sell very cheap, look very fine and nice, and wear out promptly.

The following will give the most popular numbers of each class, and how a box of twelve shoes should be divided between them:

*Men's shoes.*—Fine: Class 36, 1 pair; 37, 2 pairs; 38, 2 pairs; 39, 2 pairs; 40, 2 pairs; 41, 2 pairs; 42, 1 pair. Coarse: Class 36, 1 pair; 37, 1 pair; 38, 1 pair; 39, 1 pair; 40, 2 pairs; 41, 2 pairs; 42, 2 pairs; 43, 1 pair; 44, 1 pair.

*Women's shoes.*—Fine: 31, 1 pair; 32, 1 pair; 33, 2 pairs; 34, 3 pairs; 35, 2 pairs; 36, 2 pairs; 37, 1 pair. Coarse: 32, 1 pair; 33, 1 pair; 34, 1 pair; 35, 1 pair; 36, 2 pairs; 37, 2 pairs; 38, 2 pairs; 39, 1 pair; 40, 1 pair.

*For children between six and twenty-four months of age.*—Class 16, 1 pair; 17, 2 pairs; 18, 3 pairs; 19, 2 pairs; 20, 2 pairs; 21, 1 pair; 22, 1 pair.

*For boys and girls between two and nine years of age.*—Class 21, 1 pair; 22, 1 pair; 23, 1 pair; 24, 1 pair; 25, 1 pair; 26, 1 pair; 27, 1 pair; 28, 1 pair; 29, 1 pair; 30, 1 pair; 31, 1 pair; 32, 1 pair.

*For boys and girls between nine and fourteen years of age.*—Class 28, 1 pair; 29, 1 pair; 30, 2 pairs; 31, 2 pairs; 32, 2 pairs; 33, 2 pairs; 34, 1 pair; 35, 1 pair.

It is generally understood here that the Cuban foot is shaped differently from the American, that it is less flat, and with a higher instep and of what is called a more "aristocratic turn," generally. I think there is some truth in this very prevalent opinion. At least from my own observation I am satisfied the shoes worn here will run smaller numbers than in the United States, and I take for granted that the sizes and dimensions I have given are not inconsistent with this observation. I am informed that a serious objection to American shoes not specially manufactured for the Cuban market, is for being too low in the instep. The same objection applies to German shoes. A few days ago a dealer showed me a German shoe, the material of which was soft and oily and well suited to this market, but he informed me that it was not at all salable for the reason that it was too flat and too low in the instep.

PRICES.

I now come to a very important feature of this report. The American shoes are said to cost more than any other, at least it takes more money to buy them at retail, taking class by class, than the other imported shoes, though they are doubtless, as a rule, more durable. There are so many shoes here with so many prices and differences that I find it difficult to give satisfactory information under this head. The plan I adopt is to first to divide the material and then subdivide into classes.

MEN'S SHOES.

Kind of shoe.	Class.	Prices per dozen.	
Calf-skin, kid, and other fine leather, and imitations of all qualities :			
Spanish gaiters.....	First class.....	\$40 00 to \$44 00	
	Second class.....		30 00
	Third class.....	16 00	20 00
Spanish low-cut shoe.....	First class.....	34 00	38 00
	Second class.....		26 00
	Third class.....	8 00	13 00
"Vaqueta" (Cuban cowhide):			
High-cut Cuban.....		10 00	14 00
Low-cut Cuban.....		7 00	9 00
"Vaqueta mayorquina" (Spanish kip):			
High-cut Cuban.....			26 00
Low cut Cuban.....			16 00
Sheep-skin ("badonas and tafletes").....		7 00	9 00
"Hemp shoes," cotton uppers with platted soles:			
Low-cut Spanish.....		2 25	3 75

WOMEN'S SHOES.

Kind of shoe.	Prices per dozen.	
Kid, calf-skin, and other fine skins, and imitation of fine skins of all qualities :	\$50 00 to \$60 00	
Specially fine.....		
First class:		
Gaiters.....		40 00
Low-cut.....		36 00
Second class:		
Gaiters.....		30 00
Low-cut.....		26 00
Third class:		
Gaiters.....		20 00
Low-cut.....		16 00
Very inferior.....	8 00	12 00
Silk, or its equivalent:		
Specially fine.....	50 00	60 00
First class.....	40 00	44 00
Second class.....	32 00	36 00
Third class.....	26 00	30 00
Very inferior.....		18 00
Serge, and other such material inferior to silk:		
First class.....		24 00
Second class.....		18 00
Third class.....		10 00
Sheep-skin shoes, and slippers, "tafletes" and "badonas," with and without heels.....	4 00	7 00

## CHILDREN'S SHOES.

Kind of shoe.	Prices per dozen.	
For children from six to twenty-four months old:		
With buttons (without heels) .....	\$8 00 to	\$12 00
With cords (without heels) .....	4 00	6 00
For children from two to nine years old:		
Button shoes ("Polonesa")		
Superior .....	20 00	28 00
Inferior .....	9 00	18 00
With cord:		
Alfonsino (higher cut) superior .....	11 00	18 00
Alfonsino (higher cut) inferior .....	7 00	10 00
Napoleones (lower cut) superior .....	8 00	12 00
Napoleones (lower cut) inferior .....	4 00	7 00
Gaiters for boys and girls from nine to fourteen years old:		
Calf-skin .....		21 00
Satinated (mate) kid .....		18 00
Bright kid .....		21 00
Shagreen ("chagre") .....		18 00
"Chagre" with satinated kip tops .....		26 00
"Chagre Alfonsinos" (laced high up in front) .....		18 00
Shoes for boys and girls from nine to fourteen years old:		
Satinated kid .....		16 00
Bright kid .....		18 00
"Chagre" .....		13 00
Calf-skin .....		19 00
'Imitations' inferior leather:		
Mate kid .....		12 00
Bright kid .....		14 00
"Chagre" .....		11 00
Calf .....		13 00

## SPECIAL DESCRIPTIONS.

The following special descriptions may assist in giving a better understanding of the foregoing tables:

I find in one establishment among the shoes that meet with ready sales:

A pair of first-class Spanish shoe for men, at \$36 a dozen. This shoe is called "corte ingles." It is low cut, with five eyelets in front for lacing it up. Grained kid (calf-skin same price) bottom half-lined with white sheep I think, quarters lined with same, vamp lined with strong linen. Thin sole (an inner and outer sole) of a neat appearance and number 42, weighing 21 ounces.

Also a pair of Cuban vaqueta shoes, common, cow leather, quarters in two pieces, stitched strongly behind, low cut, slightly rights and lefts, brogan soles (no inner soles) of common red Cuban sole leather; hand-sewed from within, quarters strongly vamped at ends, with small ears ("corte salon") across the instep ample proportions in every respect; price, \$8 a dozen, marked number 12 (about 43 French measure) and weighed only 15 ounces.

Also a pair of cheap Cuban made "tafilete" shoes for ladies, price \$6 a dozen. Low cut, with three eyelets in front, without heels, no inner sole, lined with coarse linen and without ornaments of any kind and are not rights and lefts.

At another establishment (the owner of this establishment deals more extensively in American shoes than any one else, having recently had a number specially manufactured for this market), I find a fine Spanish made shoe, French calf-skin, men's gaiter, vamp and quarter calf-skin, silk elastic, upper part glove-kid or something like it on both sides of elastic, with strip of calf-skin at back, neatly ornamented on instep, "escocesa," toes not boxed but ornamental cap, elegant polish, quarter and vamp lined with linen, sole not lined, inner and outer fine sole, hand-sewed soles, otherwise machine-sewed, quarters stitched behind and neatly sewed to vamp in front of elastic, price \$40 a dozen, number 39 (5), weighing 24 ounces.

Also a man's shoe of goat-skin leather, vamp all in one piece, elastic medium quality, vamp and quarter goat, sewed strongly but neatly together immediately under the elastic, narrow shank, number 40 (5), vamp and quarter lined with cloth, machine-stitched behind, price, \$27 a dozen; weight, 23 ounces; Spanish made.

Also a stylish-looking Spanish shoe for men, of goat, others same price and quality are of calf, upper part a soft satinated leather, elastic gaiters, narrow shank, stylish shaped, high heels, number 37 (3), cloth-lined, uppers machine-sewed, soles hand-sewed, price \$21 a dozen, weight 17½ ounces. The description of this shoe, while as correct as I can make it, is liable to mislead, as indeed, its appearance on the counter is also. It is a very inferior shoe, and bears somewhat the same relation to a sub-

stantial shoe that a paste diamond does to the genuine article. As already suggested it is a combination of style and inferiority.

Also a low-cut Spanish shoe for men, cheap calf-skin, quite soft and oily, English tie, four eyelets, vamp and quarters same material, quarters neatly curved from near the heels to the front of the eyelets, quarter lined with cloth, sole half lined with cheap cloth, vamp lined with white sheep, number 40 (4), American style, price \$14 a dozen, weight, 17½ ounces.

Others of substantially the same make, of shagreened ("chagres") sheep-skin, unvarnished, yellowish leather, cost \$15 a dozen. Others, with uppers, made partly of cotton and partly of yellowish-looking sheep-skin, also cost \$15 a dozen.

Also a sheep-skin shoe, men's size number 39, "tafilete," bright purplish color, low cut, 3 eyelets in front, quarter and vamp same material, sole not lined, vamp and quarter lined with cotton, with heels, soles hand sewed, uppers machine sewed, weight 2 ounces, price \$9 a dozen.

Others, same shoe, women's sizes, \$7 a dozen; others, about the same, but without heels, men's sizes, \$7; women's sizes, \$5. Slippers, same material, vary very little from these last. They generally cost about \$1 per dozen less. "Badonas," another light sheep-skin shoe, of light yellowish color, sells for about the same price. The "tafilete" shoes are consumed in large quantities. Much the greater part of those without heels are made here, while those with heels come principally from Spain. The Spanish make sells somewhat higher than the Cuban.

Also for ladies a very fine kid, "mate kid," (I understand this to be what is called glove kid in the United States). Very high "polacca" with buttons, button-holes "conchas" formed, stitched with machine, strip of red kid lining through which the button-holes are stitched, top lined with brown silk, sole lined with fine white sheep, balance lined with linen, high cannal-cut heel, but rather conservative in shape, sole hand sewed, uppers machine sewed, quarters neatly curved from near the heel to front of foot, price \$50 a dozen. About the same as the above, but of brilliant bronze kid, cost \$60 a dozen.

Also a first-class ladies' "bota" with silk elastic, fine glove kid, elegant heels, but not much inclined to the front, deep narrow shank, border of silk lining at top, otherwise lined with fine cloth, sole lined with white sheep, vamp neatly curved, price \$40 a dozen.

Also for ladies, a low cut, neat-looking glove kid ("mate"), high heel, inclining well forward, made of wood with leather on top, neatly rounded where it unites with the sole (called Louis XV), quarters well curved from below instep to front, plain cheap ribbon, low in front, vamp lined with cloth, quarters with a whitish yellow-colored sheep, price \$27 a dozen.

Also a cheap bright kid for ladies, plainly made, cheap ribbon bow, black and blue, with cheap ornamental silver-looking buckle, vamp lined with cloth, sole and quarters with white yellowish colored sheep, price \$15 a dozen; heels made of paste with leather on top, small and plain.

DEALERS.

The following are the principal dealers in clothing and shoes in this city. Very few of them import directly in their own name, but either buy from Havana or import directly through some duly licensed importer of this port. I will, of course, give more specific information in this connection by letter to American merchants or manufacturers if requested by them to do so.

Name of person.	Name of establishment.	Dealers in—
Antonio Bernes.....	La Mar.....	Shoes and leather.
Antonio Torres.....	La Princesa.....	Do.
Valasco y Rueloba....	Las Novedades.....	Do.
Rafael Genor.....	Mahonesa.....	Do.
Louis Alvarez.....	La Nabanera.....	Shoes.
Sota y Trueva.....	El Gallo.....	Do.
Tomas Lagares.....	La Imperial.....	Do.
Adolf Lora.....	El Estribo.....	Saddle and harness.

PACKING AND ENTERING THE MARKET.

Mr. Antonio Torres, who deals largely in leather and shoes, and who is probably as reliable a dealer as any of the others, expresses to me



the opinion that the best way to extend the trade in American shoes and leather would be by consigning sample quantities and gradually feeling the market and making such changes in the character of the goods as the developments of such a course would suggest.

I find no complaint made at this port with the dealers I have talked with, about the way American shoes are packed. They should, of course, be packed so as to keep them from rubbing and protect them from the damp sea air. This seems to have been sufficiently done with the shipments that have been made.

WM. P. PIERCE,  
*Consul.*

UNITED STATES CONSULATE,  
*Cienfuegos, September 14, 1885.*

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## HAVANA.

### REPORT OF CONSUL-GENERAL WILLIAMS.

#### LEATHER.

The leather industry of Havana is not an extensive one, there being but few tanneries established here.

Hides are obtained from the cattle slaughtered for local consumption, at a cost of \$4.75 to \$5 gold each for superior classes, and \$3.50 for second, and nominal for third qualities.

The material used in tanning is principally the bark of the "mangle" or mangrove tree, found in great abundance all along the swamps of the coast of Cuba.

But little leather is manufactured here. The few tanneries in operation here make sufficient leather to meet the local demand. In consequence very little is imported, and surplus raw hides are frequently shipped hence to the United States or used upon plantations for strapping the outside of sugar boxes, as well as for other purposes.

#### AMERICAN LEATHER IN HAVANA.

Leather is seldom imported here from the United States. For certain purposes American leather is considered good, such as for machinery belting, harness, &c., but these articles generally come already manufactured from the United States, and ready for immediate use; but for shoes the French and English leather is preferred. The small amount of American leather imported here generally gives satisfaction.

#### BOOTS AND SHOES.

Shoes made here are of a good quality and neat in shape. But there are no factories on a large scale. All shoes are made by hand; no machinery, save sewing machinery, is used. All shoes made in Havana are sold and used here; none are exported.

#### AMERICAN SHOES IN HAVANA.

Shoes manufactured in the United States have a good reputation in this market for durability, and it is said they would find more ready sale if made after the French and Spanish fashions.



The faults found with American shoes here are their stiffness on the instep and across the soles, together with their difference in shape from those worn here, and their creaking noise when the wearer walks. The remedy for these would seem to be to make shoes after the manner and fashion of those made here.

The best method of introducing American shoes into this market appears to be through some old and reliable house engaged in the trade, which could furnish American manufacturers information, in detail, as to the manner of packing and shipping and the style of goods needed, without the intervention of a commission merchant.

Messrs. Aedo & Co., of Havana, are said to be the largest importers of American shoes.

RAMON O. WILLIAMS,  
*Consul-General.*

UNITED STATES CONSULATE-GENERAL,  
*Havana, June 30, 1885.*

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## SANTIAGO DE CUBA.

### REPORT OF CONSUL LANDREAU.

#### LEATHER.

There are here two tan-yards of but little importance. Hides obtained for the consumption of this city cost from \$4.50 to \$5 apiece. Tanning materials used are bark of tree known as Cuban oak, lime, and divi-divi, obtained from San Domingo and Central America.

The quality of leather manufactured is very common, and is all consumed in this city and vicinity.

The only imported leather is brought from France in small quantities. None is imported from the United States, so no comparisons can be made. American leather no doubt would suit this market if properly managed.

The way to introduce leather and shoes is to have an agent stationed with samples on hand.

All shoe-dealers retail leather, and have only small quantities from France, selling from \$9 to \$14.60 the two sides.

The leather of this country is sold from \$9 to \$13, white or red.

#### BOOTS AND SHOES.

Every shoemaker is a small dealer. Machinery used only on a small scale. Low shoes and gaiters are used, generally with light soles. Fine morocco and calf-skin in general use are imported from France. As a general thing all shoes are imported from France and Spain. I have seen but few American shoes here.

The fault found with American shoes is that they are too heavy for this climate.

The best and only good way would be to station an agent in each city. The importers are all Spaniards, and would not be likely to act properly in American interests.

An agent should be stationed here with samples to introduce American goods of all sorts. If this consulate was allowed to introduce American goods, I am sure that an increase would soon be felt, and if

our manufacturers in general wish to place their goods they must have some one to take an interest for the sake of his country, and not send a traveling clerk on a flying trip to this country. The district I live in is monopolized by English, Germans, and Spaniards, who naturally are not in love with the prosperity of the United States nor anxious to see it increase.

JOHN C. LANDREAU,  
*Consul.*

UNITED STATES CONSULATE,  
*Santiago de Cuba, May 28, 1885.*

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## CARDENAS.

### REPORT OF COMMERCIAL AGENT NUNEZ.

#### LEATHER.

The condition and extent of the leather industry are limited and primitive in this part of the island of Cuba, though more elaborate in some kinds of saddlery, especially in Mexican saddles, than in anything else.

The hides and skins cost here about \$5 each, Spanish gold. Bark is the material chiefly used in the tanning process, and there exists a sufficient indigenous supply of the article.

The quantity of leather manufactured here cannot be ascertained, but its output is consumed in the district and vicinity.

Calf, morrocco, buffalo, and japanned leathers are principally the imports, but neither the aggregate amount nor the amount imported from the United States is ascertainable.

#### AMERICAN LEATHER.

American leather compares favorably with other leathers as to durability, but it is not so light or so well adapted to the climate or to the habits of consumers, especially of the higher grades of the article, though it suits the market fairly well, and low prices would enable it to sustain successful competition. The only fault found with it here is that it is too heavy. The following are the parties principally engaged in the business in Cardenas: R. Villameva, Alejo Dias, and Domingo Vetus.

#### BOOTS AND SHOES.

Machinery is not used at all in Cardenas in the manufacture of boots and shoes. There are many hands employed in the work, but the article usually turned out is a very common, low-priced shoe, consumed by the common people and on plantations; and, almost universally, these shoes are without heels.

The better class foot-coverings are usually of a very light calf-skin, and consist of shoes and half boots, with and without elastic at the sides. The sizes are under the average in the United States, and the toes much more pointed, while the heels are much higher.

The imported shoes here are brought from Spain, France, and the United States.

## AMERICAN SHOES.

American shoes and half-boots (high boots are very little used, even for riding, where leggings of leather are used) compare favorably with those from other countries, and can be made to suit this market as well as any others imported here, and, with low prices, could compete successfully with all others.

The packing of boots, shoes, and leather depends upon the weight and materials, and is similar to what is practiced in the United States.

JOSEPH A. NUNEZ,  
*Commercial Agent.*

UNITED STATES COMMERCIAL AGENCY,  
*Cardenas, Cuba, May 15, 1885.*

## JAMAICA.

## REPORT OF CONSUL HOSKINSON.

## TARIFF.

On leather and manufactures, 12 per cent. ad valorem. If undervaluation is suspected, the government retains the privilege of taking the goods at the stated valuation.

## POPULATION AND FOOT-WEAR.

In estimating the character and extent of the shoe and leather trade in Jamaica, the condition of the population is to be duly considered. This island contains a population of about 600,000, of which 15,000 are white, 450,000 black, and the remainder colored and mixed races. The immense majority of the population do not wear shoes at all, except upon Sundays and special occasions.

## IMPORTS OF BOOTS, SHOES, AND LEATHER.

By the Blue Book for 1884, just published, I gather that the value of boots and shoes imported into the island for the year ending September 30, 1884, was \$140,307.49, contributed as follows:

Great Britain.....	\$109,135 21
Dominion of Canada.....	3,476 26
United States.....	21,659 00
France.....	5,859 48
Other sources.....	177 54
Total.....	140,307 49

The imports of leather were:

United Kingdom.....	\$54,937 30
United States.....	4,595 89
Total.....	59,533 19

The boots and shoes that I have seen exposed for sale in the stores and shops are generally of French styles, and seem to me rather flashy and intended more for show than wear. Very few American shoes are imported into Kingston, the bulk, I think, of the United States importations going into the ports on the north side of the island, having

direct trade and communications and exchanges of products with the States. The dealers in this city criticise American goods as either too poor in quality, or, if of good quality, too high in price to compete with English and French goods.

EXPORTS OF HIDES AND SKINS.

The value of hides and skins exported was : Hides, \$43,744.69 ; goat-skins, \$9,855.

Hides were exported as follows :

Great Britain.....	\$6,018 15
Dominion of Canada.....	21,140 07
Germany .....	13,466 87
United States.....	3,119 60
Total .....	43,744 69

Goat-skins were exported as follows:

United Kingdom.....	\$567 75
Dominion of Canada .....	23 84
Germany .....	4 69
United States.....	9,258 72
Total.....	9,855 00

BOOT AND SHOE MANUFACTURE IN JAMAICA.

The manufacture of boots and shoes in this island is carried on in a small way by the old-fashioned shoemaker and cobbler, except what are termed "Cuban slippers," a light, russet sheep-skin shoe, with a low heel. These were first introduced by the Cuban refugees, who fled to the island for safety during the last Cuban rebellion, and are partly made by women on the sewing-machine and finished in the shop by the workman. They are sold at 60 cents per pair.

HOW TO INTRODUCE AMERICAN TRADE.

I do know of but one house in the United States making any effort to secure the Jamaica trade. This is an energetic Boston house, which employs an intelligent salesman, who visits all parts of the island once a year, and with annually increasing orders. I append in connection a letter from a prominent boot and shoe dealer, and one also from a leather importer and tanner. There are three tanneries in Kingston. The hides and skins are all obtained here and the leather consumed here.

GEO. E. HOSKINSON,  
Consul.

UNITED STATES CONSULATE,  
Kingston, Jamaica, May 12, 1885.

Messrs. Dick & Abbott to Consul Hoskinson.

ROXBURGH HOUSE,  
Kingston, Jamaica, May 7, 1885.

GEORGE E. HOSKINSON, Esq. :

DEAR SIR : We readily give you what information we can with regard to the boot and shoe trade in Jamaica; so, in order to make our ideas as clear as possible, we propose to answer them as questions, viz :

- No. 1. None.
- No. 2. None.
- No. 3, part 1. Shoes for men, elastic side, buttoned and laced, sizes from No. 5 to 12, retail price from 6s. 6d. to 20s.

Shoes, elastic side, buttoned and laced, sizes from No. 5 to 12, prices, 4s. 6d. to 16s. No. 3, part 2. American boots and shoes do not sell well, because of the rough makes sent here, at prices which compare badly with England and France, and also as a rule the insteps are not high enough for the customers that buy these goods, viz, the negroes.

No. 5. Very small in comparison with England and France in the better makes. Scarcely any American goods are imported; except in cheap women's Prunella E. S. a fair trade is done; also, a cheap women's leather-laced boot, the former to cost 50 cents, the latter 75 cents per pair.

No. 6. American goods are generally sent from New York City. They do not compare well with English and French. I send you a price-list of an English house, whose goods sell very largely here. I sell of this make alone, I suppose, nearly £1,500 per annum.

Lastly. The best means to do a big trade would be to have all classes to appear more like French boots, and instead of making boots and shoes out of paper, let it be leather at the same price.

DICK & ABBOTT.

*Mr. Macdonald to Consul Hoskinson.*

- No. 1. Six tanneries in the island.
- No. 2. Hides 10s. to 18s., according to size; goat-skins, 6d. to 1s. each; sheep-skins not tanned.
- No. 3. Divi divi, mangrove bark, mangrove leaves, broad-leaf bark, pimento leaves.
- No. 4. Ten thousand hides yearly, Kingston.
- No. 5. Shoe and harness, all finer kinds; very large quantity.
- No. 6. Scarcely any.
- No. 7. Our people will not use the hemlock-tanned leather.
- No. 8. Tried it; customers won't buy.
- No. 9. Too expensive if imported direct; could buy it cheaper in London.
- No. 10. Offer inducements.
- No. 11. All firms have English connections.

JNO. MACDONALD,  
*Leather Importer, Kingston.*

MAY 12, 1885.

## SAN DOMINGO.

### REPORT OF CONSUL SIMPSON.

#### RATES OF DUTIES.

##### LEATHER.

Calf skins .....	per dozen..	\$7 20
Calf-skins, glazed.....	do.....	9 00
Sole leather.....	per quintal..	9 00

##### BOOTS AND SHOES.

Men's boots, of calf-skin or other similar article, with elastic sides, No. 3½ and upwards.....	per dozen..	\$18 00
Same, No. 12 boys' to No. 3 men's.....	do.....	12 00
Same, below No. 12 boys' to No. 3 Men's.....	do.....	7 20
Men's lace boots, of calf-skin and other similar material, No. 3½ and upwards, per dozen.....		10 80
Same, No. 12 boys' to No. 3 men's.....	per dozen..	9 00
Same, below boys' to No. 3 men's.....	do.....	6 00
Men's low shoes, of calf-skin, &c., No. 3½ and upwards .....	do.....	9 00
Same, No. 12 boys' to No. 3 men's.....	do.....	7 20
Same, below No. 12 boys' No. 3 men's. ....	do.....	3 60
Ladies' boots, of bronze, calf, or other similar material, No. 2 and upward.do....		9 00
Same, No. 10½ girls' to 1½ ladies'.....	do.....	7 20
Same, below girls' 10½.....	do.....	4 80
Ladies' shoes, of bronze, calf, or other similar article, No. 2 and upward.do....		4 80
Same, No. 10½ girls' to 1½ ladies'.....	do.....	3 60
Same, below girls' 10½.....	do.....	2 40

Duties are not discriminatory. I cannot ascertain that any methods of packing or shipping different from those generally used in the United States are advisable."

#### LEATHER.

The extent of the leather industry is very limited. The hides and skins are obtained in this country and cost from 12 to 14 cents a pound.

Mangrove bark and divi-divi are the principal materials used in tanning and are also obtained in the country.

There are several manufactories in this district, mainly in the interior. The only one in this immediate neighborhood, with a capacity of 100 quintals per month, has not been in operation for some time, owing to lack of demand. It manufactured sole leather and calf. The entire output is consumed in the country. It is very difficult to learn how much leather is imported. The kind is mainly for saddlers, &c., and in value probably does not exceed \$3,000 per annum. About \$2,000, mainly glazed or enameled leather, comes from the United States. American leather compares favorably with that of other countries and suits the market. No fault is found with it.

As the trade is very small and the manufactories here pay no duty and are able to supply nearly all the demand, there is but little chance for enlargement of it. The only importers of leather here are Cosme Battee and Ginebra Hermanos, who import on commission.

#### BOOTS AND SHOES.

To what extent is the factory system of shoemaking carried on? There are no shoe factories, and no machinery is used in this island.

Low shoes are nearly the only kind made, but elastic side boots are worn more and are generally imported from France. The sizes range from 5's to 9's. The output is consumed entirely in the district. Men's boots and shoes are generally imported from France, and also a small quantity from England. Children's and ladies', within the last two or three years, are obtained mainly from the United States, and the sizes and styles are more or less the same as are ordinarily sold and worn there. The total value of imports is probably about \$3,000.

While American shoes for women and children find favor here, men's boots and shoes are higher in price, and not of same elegance of style and finish as those imported from Europe. There is also some complaint as to the quality of the leather.

The best means for the introduction and enlargement of the trade would seem to me to be to send a small consignment of low shoes and elastic side boots to some responsible house here, to show quality and price. Broad low heels and thick soles are not much worn.

Low shoes are sold at retail at about \$4 per pair, and elastic side boots of good finish and make from \$5 to \$6.

The houses here that deal in this class of goods are Ginebra Hermanos, Baretta, Chiodi & Co., and Vives & Caballero, and are all responsible parties.

The district is small and the climate warm, so that few of the people living in the country ever own or wear shoes or boots of any kind, and those living in the city are mainly supplied by home production.

THOS. SIMPSON,  
Consul.

UNITED STATES CONSULATE.  
*Puerto Plata, May 23, 1885.*



**PORTO RICO.***REPORT OF COMMERCIAL AGENT HUBBARD.*

I have the honor to state that in this consular district boots, shoes, or leather from the United States are not imported.

The shoe and leather industry of this district may be divided into two classes: First, foreign-made shoes, the long boot never being used here; second, shoes made here. The supplies of the first class consist generally of inferior shoes imported from Spain and France.

Those of the second class are furnished here by Spanish and native workmen by hand labor only. The leather employed in this industry is to a great extent tanned here, though Spanish leather is also imported. Findings are imported from France and Spain.

I do not enlarge upon this matter, because I am sure that any attempt to introduce American shoes, or American inventions to improve the local industry, would be a failure.

G. E. HUBBARD,  
*Commercial Agent.*

UNITED STATES COMMERCIAL AGENCY,  
*Mayaguez, Porto Rico, June 3, 1885.*

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**ST. THOMAS.***REPORT OF CONSUL SMITH.***TARIFF.**

The uniform rate of duty on all classes of goods imported is  $1\frac{1}{4}$  per cent. on invoice valuation, and must be paid before the expiration of the month in which the goods have been delivered from on board ship.

**BOOTS AND SHOES.**

None of the conditions embraced in the "shoe and leather circular," issued from the Department of State, exist in this consular district.

Every shoe consumed is imported. The records of the custom-house show that the annual value of such importations averages about \$90,000. This sum, however, not only represents the full value annually consumed in the district, but also the value transshipped in the harbor from one vessel to another. No record is made of goods exported, therefore the actual value of the trade cannot be accurately stated. As comparatively few of the 35,000 inhabitants wear shoes, it is probable that the value consumed does not exceed \$50,000.

The importations from the United States amounted last year to \$21,799. This year the value will be somewhat greater. Agents regularly visit both St. Thomas and Santa Cruz in the interest of some of our manufacturers. They express themselves as being well pleased with their success in such a very limited market.

The best means of enlarging the trade is to continue sending competent agents to exhibit samples and solicit orders, especially from the minor retail dealers. The English, French, and Italian firms are the heaviest importers of all classes of goods. As their business connec-

tions are almost entirely with European houses, nothing will tend to induce them to import from the United States except personal solicitation, and a demand for American shoes, brought about through the small shop-keepers who deal directly with the native inhabitants, who are not prejudiced in favor of any particular class or style.

Leather is neither manufactured nor consumed in the district. The total annual value of all importations does not amount to \$5,000. The United States supplies nearly the entire demand.

The following table shows the value of shoes and leather imported during the fiscal year ended March 31, 1885:

Countries whence imported.	Shoes.	Leather.
Denmark .....	\$62	.....
England .....	4, 659	\$145
Germany .....	5, 135	325
United States .....	21, 799	3, 745
France .....	58, 410	300
British West Indies .....	.....	65
Total .....	90, 065	4, 590

American houses desiring to communicate with firms dealing in shoes can address William Broadsted & Co., Thomas Pearson & Co., J. F. T. Titley & Co., or U. B. Castello & Co. The terms upon which any of the above-named firms would act for an American house can only be ascertained by correspondence. There is no American firm engaged in that line of business in the district.

V. V. SMITH,  
Consul.

UNITED STATES CONSULATE,  
St. Thomas, October 5, 1885.

## BAHAMAS.

### REPORT OF CONSUL McLAIN.

#### LEATHER.

There is no leather manufactured in the Bahamas. The hides and skins, procured from animals slaughtered for food, are shipped in a raw condition to the United States. The shipments are small, amounting in 1884 to 483 hides, valued at \$1,197, and 1,514 goat and sheep skins, valued at \$326.

But little leather is consumed in this colony, there being no factories that require it, the small amount imported being used in shoe shops mostly for repairs. About 200 sides of hemlock sole leather are imported annually, all coming from New York. Perhaps 50 sides of in-soling leather are brought from England. About 12 dozen calf-skins are imported from England each year. These are small and very thin skins, known here as "handkerchief" skins, weighing about 1½ pounds each, and costing \$1 per pound. No American calf is imported, being more expensive and too thick for this market.

As most of the boots and shoes used in the colony are imported ready-made, and sold at less prices than the native workmen can make them

for, I do not see that any increase in the trade in leather can be reasonably looked for; and the demand is so small that it seems scarcely worth while for our manufacturers to give the subject any attention, the sole leather nearly all coming from the United States already, and the value of the calf-skins used being less than \$400 a year. The principal importers of leather are the General Hardware Company, Charles S. Rae, manager; Messrs. Pritchard & Brothers, and Messrs. J. S. George & Co., all of this city.

#### BOOTS AND SHOES.

The few boots and shoes made in this colony are manufactured in small shops, where two or three hands only are employed, and where no machinery is used. I presume there are not twenty such shops in this colony. The leather imported is largely used for repairs. Nearly all the boots and shoes used here are imported ready-made. There is only one establishment in the colony which deals exclusively in boots and shoes, that of Mr. A. T. Holmes, at Nassau, though many of the general stores carry a small assortment of these goods. The bulk of the trade is in cheap goods, the retail price seldom exceeding from \$2.50 to \$3 per pair. Some few better class goods sell from \$5 to \$6 per pair, but more goods are sold at \$1.50 per pair for adults than at higher prices. As to the styles, finish, sizes, shapes, &c., I cannot do better than to say that the market likes substantially the line of goods popular in trade with the towns in our Southern States.

I cannot give the exact figures to show the value of boots and shoes imported into this colony per annum, because they are not entered at the custom-house separately, but are classed together with dry goods, hardware, &c., all of which pay the same ad valorem duty. But after very careful inquiry upon the subject with leading dealers here, I am satisfied that the following figures are substantially correct, viz, about \$25,000 from the United States, and about \$7,000 from Great Britain; with perhaps \$1,000 from France, in the way of enameled leather boots, which are regarded as superior in quality and price to both English and American make.

#### AMERICAN SHOES.

For ten years past the trade in American boots and shoes with this colony has been increasing slowly, but surely, until our manufacturers have now fully three-fourths of the entire boot and shoe trade. The American goods suit the market, generally speaking, very well, in style, finish, prices, &c., and are deservedly popular. Indeed so popular are the American styles, that during 1884 the largest London house engaged in the West Indian boot and shoe trade, Messrs. Turner Brothers, Hyde & Co., have notified customers here that they will fill any order (of not less than two dozen pairs) for boots and shoes, guaranteeing them to be made in American style, at same prices and of better material than the American manufacturers furnish them at.

#### INCREASE OF AMERICAN TRADE.

The United States have already three-fourths of the trade of this colony, and as the increase of population is very slow, amounting to only 10 per cent. in the last decade, and as the total population is to-day only 45,000, and as the islands are poor and not materially advancing in wealth or purchasing power, there is small prospect of any marked increase in

the total consumption of goods of this kind. It would therefore seem that about all our manufacturers can hope to accomplish is to retain their present trade, which can easily be done, and to turn into American channels the \$7,000 or \$8,000 worth of importation, which now come from England. This item is not a large one, and may hardly be worth considering; yet I will briefly put before our manufacturers and exporters the reasons why this portion of the trade remains with England, leaving it to their judgment whether it will repay them to attempt to secure it.

The goods imported from England consist mainly of the better class of boots and shoes for ladies and gentlemen, and so far as style is concerned, there is no prejudice in favor of the English goods. Americans in furnishing these goods will not be called upon to alter the style at all. The reasons why these goods are at present bought in England are as follows, viz: (1) English prices are from 20 per cent. to 30 per cent. lower than ours. (2) The leather used is better, being tanned by a slow process, whilst our leather is tanned quickly, and is not so good in consequence. And American soles are sometimes filled in with scraps, whilst English soles are solid. (3) Illustrated catalogues sent out by English houses contain full price and discount lists, which American ones seldom do, thus requiring the merchants to correspond as to prices, &c. (4) Prices fluctuate but slightly in England, but largely and frequently in America. It is said that during the last two years, the prices of these goods in England, have not varied 1 cent per pair, but in the United States they often vary 10 cents per pair. A merchant in ordering from London knows what price he will have to pay; but when sending to the United States, he must take the chance of a sudden advance in prices. English manufacturers are very slow to change prices. Americans do so on the slightest pretexts. (5) Americans require cash for a bill, or may give a fixed term of credit, say three or four months, and then expect payment. The English house keeps an open account with the customer, he ordering as he may need, and remitting cash as convenient, the account going on in that way, a custom of long standing and very acceptable to West Indian merchants. English houses often have large capital, and are content with very small profits and interest.

The foregoing are the principal reasons why some merchants buy in England. The first three apply specially to the trade which England still retains, the others militate against all trade, but in spite of them we have secured most of the trade in the cheaper and coarser grades of boots and shoes, there being less difference in them in prices and quality than in the more expensive goods.

The matter of transportation is in our favor as we have regular monthly steamers between New York and Nassau, whilst English goods must either be shipped from London via New York or come by freight steamer direct once in about two months. The matter of exchange is also in our favor.

#### MISCELLANEOUS.

The duty on boots and shoes and leather is 20 per cent. ad valorem, which is assessed alike on the manufactures of all countries, no discrimination being made in favor of English goods, although this is a British colony. Goods are to be shipped in exactly the same manner as they would be shipped by vessel from New York to any port in Great Britain, and the customary method of packing in wooden cases is entirely satisfactory. English boots and shoes are usually sent here in

light, cheap trunks, covered with bagging, but there are no special advantages in that way of shipment.

Nearly all the merchants here purchase their goods either from jobbers or through general commission merchants in New York, very few, if any, buying of manufacturers directly. Those who deal in English goods more frequently buy of manufacturers who are willing to fill small orders of even two dozen pairs, at wholesale prices, which our American manufacturers will not be troubled with.

Among others engaged more or less in the importation of boots and shoes in this city, which represents the trade of the colony, I would mention: A. T. Holmes, E. S. Hall, M. C. Knowles, W. E. Armbrister, T. P. Moore, D. S. Farrington, Culmer & Russell, J. A. Thompson, D. J. McDonald, W. P. Sands, C. T. Sands, Menendez Brothers, D. A. Brice, and Holmes & Son.

THOMAS J. McLAIN, JR.,  
*Consul.*

UNITED STATES CONSULATE,  
*Nassau, N. P., May 16, 1885.*

## ANTIGUA.

### REPORT OF CONSUL JACKSON.

#### TARIFF.

The duties charged on leather and boots and shoes are 6 per cent. ad valorem and an additional  $12\frac{1}{2}$  per cent. on the 6 per cent. collected, in all amounting to about 7 per cent. Duties are assessed alike on the manufactures of all countries.

#### IMPORTS OF LEATHER.

There are no tanneries in existence in Antigua or in its immediate vicinity; consequently all leathers necessary to the trade are imported from Great Britain and the United States. The total amount imported for the year 1884 at Antigua comes to \$8,262.62, of which amount the United States contributed only \$218.86 worth. The importations from the United States for the year 1883 come to \$97.06 and in 1882 to \$24.

The kinds and qualities imported are principally light and medium sole, medium harness, medium calf, and linings or basils.

#### FAULTS FOUND WITH AMERICAN LEATHER.

The American sole leather, hemlock tanned, is harder than the British sole leather, and one dealer assured me that he had given up importing from the United States because his customers preferred the softer leather. Boots and shoes made and repaired here are always hand-sewed, and the shoemaker prefers easy-working leather.

Another dealer who has American leather in stock (a small dealer, by the way) tells me that American leather is liked; that it is cheaper and better for the money; that the charges are 50 per cent. less; and that a supply can be obtained from New York in less time; that he hears little complaint on account of the hardness of the sole leather.

## HOW TO INTRODUCE LEATHER.

I would recommend that any substantial jobbing house or any manufacturer desiring to gain a share of the trade this way to dispatch one of the firm in the coming winter months armed with samples and the time and patience to make a good acquaintance with the tradespeople. In short, let him come and study the methods of trade.

To introduce leather into Antigua, any firm can forward to my care any sample or samples, which will be placed in the sample-room in connection with this office, where they will be brought to the notice of the trade without expense to the shipper.

## IMPORTERS OF LEATHER.

*Antigua.*—William Forrest, A. McAdam, A. J. Comache & Co., Manoel Somes & Co., Geo. W. Bennett & Co.

## BOOTS AND SHOES.

Shoemaking is carried on in a primitive way here. Not only are there no factories for making boots and shoes, but the shoemakers are a poor class, possessed of few tools and of inferior ability to make use of what they have.

Their purchases of stock do not exceed a few shillings at any time, and in some cases a customer is obliged to cover the cost of material to insure a pair of shoes.

Nearly all the foot-gear used is imported, and the bulk of it is a grade made to meet the wants of the black trade.

## CLASS AND STYLE.

The classes and styles of boots and shoes are subject to little, if any, change, one importer declaring that he is now selling the same kind of stock, with little exception, that he sold twenty years ago.

In men's foot-gear the principal kinds imported are a low calf or blue cloth shoe with tie; toes more pointed than broad, and moderate heel; also the gaiter boot, common side elastic, calf or imitation; heel and toe same as in low shoe. A good many low canvas shoes, brown leather tipped, are sold now, the demand having sprung up within the last four years.

In ladies' shoes one popular kind goes by the name of "lasting low shoe." It is four-button, black crepe uppers; cost, 66 cents cash in England.

Another kind much worn is the crepe elastic side gaiter-boot, costing 60 and 62 cents cash in England. These two kinds are principally sold to the blacks, the laboring portion of the population. A good many shoes of a better description in calf and kid are also purchased by the same people.

While Antigua has a population of 35,000, I am sure 28,000 of it go barefooted six days of the week, and on the seventh shoes are only worn for church-going and dress purposes.

Boots and shoes are imported from England and the United States, and the annual invoice value amounts to about \$17,000. In 1884 the imports from the United States come to \$543.34, in 1883 to \$140.60, in 1882 to \$9.



AMERICAN BOOTS AND SHOES.

In connection with the importers I find conflicting evidence respecting American boots and shoes.

One firm imports a single kind and style, which they get cheaper and better from the United States, but see no advantage in other kinds. Another firm grumbles because the goods are too flimsy, but concede they got them very cheap. Another is disgusted because it invested in a kind that was thought would hit the market, but proved unsalable.

The general feeling seems to be that Boston cannot compete with Northampton.

In introducing boots and shoes into this market I think that the directions for introducing leather are applicable.

The names of trustworthy firms that regularly import boots and shoes are as follows: Wm. Forrest, A. McAdam, S. Galbraith, W. T. Proudfoot & Co., John Bridger, Louisa Thibou, Dilas J. Martin, Murdock & Co., W. H. Moore.

Almost all boots and shoes from England come out packed in cheap trunks. The trunks are sold at a profit by the tradesmen.

The shipping charges on goods from Great Britain aggregate to double the amount when the same volume of goods are imported from the United States.

Some of the tradesmen are ready cash, while others ask three months' time.

CHESTER E. JACKSON,

*Consul.*

UNITED STATES CONSULATE,

*Antigua, September 5, 1885.*

GUADELOUPE.

REPORT OF CONSUL BARTLETT.

TARIFF.

Leather, boots, and shoes are subject to a duty of 5 per cent. ad valorem. Goods imported from France pay the same as those brought from other countries.

LEATHER.

There are two tanneries on the island, turning out annually leather to the value of 40,000 or 50,000 francs. They are supplied by local butchers, and a skin is worth about 75 centimes a kilogram at the tannery.

The material used in tanning is the bark of the mangle tree, of which there is an abundant supply in the colony. All the leather made in the local tanneries is consumed in the colony.

Kip, calf skins, and light sole leather are annually imported to the value of \$100,000, and are all obtained from France. No leather is imported from the United States.

A trade in American leather might be begun by sending samples to a responsible house here to place upon the market. Most of the dealers in dry goods and hardware import leather from France. Any leather firm in America desirous of trying this market may correspond with

me, and I will endeavor to find some few of these houses which I have no doubt would be willing to sell on reasonable commission.

BOOTS AND SHOES.

The factory system is unknown, and no machinery is used except sewing-machines in the custom shops.

The shoes used in this colony are all light sewed shoes, some with elastic sides and some with low quarters with light heels. No boots are used. The ladies' shoes that are worn are very fanciful, of a light kid or cloth, with high heels. The country people mostly go barefooted, excepting a few that use wooden shoes, called "sabots," imported from France. What are made in the colony are for home consumption. In addition, boots and shoes to the value of from 500,000 to 600,000 francs are annually imported from France.

A few boxes of children's shoes of American manufacture were consigned to a commission merchant here some four or five years ago. He still has them on hand, for they were pegged, and the people here will not wear anything but sewed shoes.

A few samples sent to a reliable house might lead to some orders.

CHARLES BARTLETT,  
Consul.

UNITED STATES CONSULATE,  
Guadeloupe, August 10, 1885.

BARBADOES.

REPORT OF CONSUL HOLLEY.

TARIFF.

The rate of duties on leather and boots and shoes is 8 per cent. ad valorem.

LEATHER.

There is no leather manufactured here, most of the hides and skins finding their way to American markets. American leather is little sought after here, objection being made that it is not so well tanned as that imported from England.

I believe that American leather compares favorably with that manufactured in other parts of the world, and, if properly introduced, would find a better market here.

The leather imported here (chiefly for cobbling purposes) during the past year amounted to:

Articles.	Great Britain.	United States.
Leather.....	\$39,072 40	\$1,573 00
Saddlery and harness .....	5,367 62	387 42
Total .....	44,440 02	1,961 02

The import of leather from the United States was mostly in carriage hides.

The principal merchants engaged in the leather and saddlery and harness importation are C. F. Harrison & Co., G. W. Hutchinson & Co., and Carter & Co.

#### BOOTS AND SHOES.

There is no factory system of shoemaking here. All boots and shoes correspond in sizes, styles, and shapes to the English markets, the chief supply having for years come from there, except perhaps a few cases for ladies' wear coming from France and a few from the United States. American styles are liked here.

About one-third only (60,000) of the inhabitants of this island wear shoes. One-half of the supply is imported, and the remainder is manufactured here in small shops. I cannot obtain value of imports, as they are classified with miscellaneous articles, but the value from the United States I do not think exceeds the small amount of \$800 per annum.

The only reason why American manufactures are not better represented in the leather and boot and shoe trade in the West Indies, and especially at this place, is, in my opinion, owing to the long credits given in the mother country to merchants here over the United States.

The best means of opening up this trade with the West Indies is to correspond with reliable firms with a view to shipping goods to them on such terms as they may suggest, until a market for this American industry can be established. Merchants doing business in the boot and shoe trade are: George Whitfield & Co., Bridgetown; Da Costa & Co., Bridgetown; Thomas Lawlor & Co., Bridgetown; Ramsay, Elder & Co., Bridgetown; C. F. Harrison & Co., Bridgetown; Bourne & Co., Bridgetown.

ROBERT Y. HOLLEY,  
*Consul.*

UNITED STATES CONSULATE,  
*Barbadoes, West Indies, August 24, 1885.*

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#### CURACAO.

##### REPORT OF CONSUL SMITH.

#### TARIFF.

On leather and manufactures, 1½ per cent. ad valorem.

#### LEATHER.

All the leather used here is imported, as there are no tanneries, and skins and hides are shipped from here, as is the case with divi-divi. These are among the principal exports from this island. Sole leather is imported from the United States, and other leathers, kid, calf, and glazed, are obtained from Europe. American leather compares favorably with the manufactures of other countries, and no fault is found with it. I think it could be introduced by having a reliable person engaged in the import of American leather to act as agent for American houses. Mr. Daal, an established merchant here, imports some leather from the United States.

## BOOTS AND SHOES.

There are no factories here, and as most of the work is done by hand, no machinery is used except in sewing. The largest part of shoes worn are made here; some are imported from France and Austria and a few from the United States.

The class or style of boots and shoes worn are from French patterns and made from kid, light calf, patent, or glazed leathers. Those for ladies' and children's wear mostly come from France. They are made of cloth, of all colors, and, though finished to present a fine appearance, in reality they are very cheaply made. I think the manufacture of that class of goods is carried on in France principally for export to South and Central America.

The best means for the introduction of American boots and shoes would be to make them as above described to suit the wants of the people, and to sell them at prices not to exceed those imported. A far superior article at a slightly increased price will not sell goods here as in the United States.

Sample lots could be placed on the market by sending them to an agent, packed as is customary.

A better and more general way of introducing manufactured goods into these countries is the one followed by all European houses engaged in the foreign export trade. They send out reliable agents of their own, men of intelligence. In this way they will become acquainted with the wants of the different countries, and know how to meet them. If our American manufacturers wish a large share of the export trade of Central and South America, they must use the same exertions to secure it as those of Europe do. Other conditions are all in our favor.

L. B. SMITH,  
Consul.

UNITED STATES CONSULATE,  
*Curaçao, West Indies, June 5, 1885.*

## SOUTH AMERICA.

## COLOMBIA.

## REPORT OF CONSUL DAWSON.

## TARIFF.

The duties on shoes from all countries, without discrimination, are 75 cents per kilogram, or 37½ cents per pound, and the box containing them is paid for at the same rate as the shoes. To this is also to be added 15 per cent. state tax upon the import duty. Leather is 5 cents per kilogram, and 15 per cent. state duty.

## LEATHER.

The extent of the leather industry here is very limited at present, owing to the revolution which has paralyzed all business for the time being. The hides tanned in the only two tanneries here are bought in this place generally from the butchers. No skins are tanned here. The cost of hides at the tanneries is from \$4 to \$5, Colombian currency, ac-

according to the size. The materials used for tanning the hides are divi-divi, nuts, and mangle bark, which the tanners here maintain make the leather tougher and more durable than any imported from the United States.

About 3,000 hides are tanned here annually, and the leather is sold and consumed in the States of Bolivar and Magdalena. A side of leather is worth about four Colombian dollars after it is tanned, or just twice what it costs in a raw state. There is no leather imported from the United States to this place. The samples tried proved a failure, because the leather broke when the men were sewing it. Probably the samples were some worthless stuff. French leather is preferred and used here. Good American leather (not rotten, worthless stuff that cannot be got rid of at home) would doubtless find as ready a sale, and be as much sought after here as that of any other country. Until our people send their best articles, put up in the best manner, and sell on the same terms as Europeans, they need never expect to get the trade of this or any other South American country. The way to remedy the faults found with American leather is to send here as good, or better, leather than the natives can make. Trustworthy firms with whom Americans can deal, are M. & A. Correa & Co., Villan, Bell & Co. (who import the finest French leather and shoes), Insignares Sierra, Roca & Co., J. C. Meyerhaus, Demétrio Dávila, Julio Castellano & Co., and Manuel Villalobo & Co.

#### BOOTS AND SHOES. .

There are no shoe factories within this consular district. No machinery, except the sewing-machine, is used. Shoemaking is done entirely by hand. Machinery has been tried, but without success. As to the class of boots and shoes worn, in the first place, no boots are worn. The shoes are narrow-pointed, with high insteps, and heels of medium height. This is the kind generally used, but of course any kind ordered is made. The output is consumed within the district where the shoes are made. Shoes are generally imported from France, and very few from the United States, because the American shoes crack more quickly when exposed to the heat of the sun and sand. The only way to remedy this defect is to send good shoes here. The faults of American shoes are, poor leather, broad or square-toed points, low insteps, and flat heels. The men's good shoes can be placed here at the rate of \$4 per pair, United States gold coin, and ought to be packed in trunks, each pair folded in paper separately. These, of course, must be sewed shoes. Ladies here use French shoes altogether, and our merchants cannot hope to compete for the trade of this place except by complying with the conditions which the country requires; but if they will give the same attention to the quality of their goods, to the packing, to the class of shoes required, and grant the same credit as other foreigners, there is no reason why citizens of the United States should not share the trade of this country with Europeans.

THOMAS M. DAWSON,  
*Consul.*

UNITED STATES CONSULATE,  
*Barranquilla, August 23, 1885.*

## VENEZUELA.

Consul Winfield Scott Bird, La Guayra.  
Consul E. H. Plumacher, Maracaibo.

### TARIFF.\*

Dressed skins .....	kilogram.....	\$0 50
Sole leather .....	do.....	15
Undressed skins .....	do.....	15
Dressed skins (cut) .....	do.....	4 00
Patent leather.....	do.....	50
Other kinds .....	do.....	1 00
Boots and shoes.....	do.....	4 00

Consul Plumacher reports that the tariff is 30 per cent. greater on all goods coming from the Antilles. Consul Bird writes :

The shoe and leather industry, like some others in Venezuela, has been protected by legislation to such an extent that it has become a monopoly, depriving the country of a legitimate revenue on shoe imports, and enriching a few persons at public cost.

### LEATHER.

*Maracaibo.*—Hides are of local production, the exports being yearly about 5,700,000 pounds. Leather industry primitive and of small extent. Dry hides are worth 17 to 19 cents a pound ; salted hides, 12 to 14 cents ; fustic, divi-divi and coucha-de-mangle—all produced in the country—are the materials used in tanning. What leather is manufactured is chiefly for home consumption ; small quantities are sent to neighboring ports like La Guayra, Coro, &c. Some fine leathers are imported from Germany and France, and, while the quality of American leather compares favorably with manufactures of other countries, the price is too high, hence the imports are trifling. Firms engaged in importing leather: Blohm & Co., Willson & Co., M. Dagnino & Co.; Angel Urdaneta & Co., and Christern & Co. Terms, consignment and own account.

*La Guayra.*—Sufficient quantity of native leather made to supply domestic needs, though for the manufacture of saddles and harness a small quantity of the best leather is imported from the United States. Upper leather, comprising calf and kid skins and patent leather, are chiefly imported from France, though a small portion comes from the United States. Native goat and deer skins cost about 21 cents. So far as can be ascertained the heavy leather of the United States is considered as superior to any other, though for the light classes of shoes worn, the French upper leather is preferred. Messrs. A. Delfino & Co. are the only importers of foreign leather in this place. This firm has the entire control of the shoe and leather business of Venezuela.

### BOOTS AND SHOES.

*Maracaibo.*—While the factory system of shoemaking is conducted to a considerable extent in comparison with population, no machinery, other than sewing-machines, is used. French styles of small numbers and high spaces are mostly worn. The product is all consumed in Venezuela. Small quantities of shoes are imported from the United States, France, and Germany, as well as from Caracas via La Guayra. The

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\* One dollar of the tariff is equal to 96 cents United States currency ; and 46 kilograms are equal to 100 pounds avoirdupois.



heavy duties shut out all but very cheap articles. There is a good field for *cheap* American goods. Traveling agents and depots in the various cities are the means for introducing them. Importers of shoes are: Willson & Co., Rafael Ingohermanos, J. H. D. C. Gomez, De Lima & Co.

Packing must be solid, but not too heavy, as duties are paid on the gross weight, which must be stated very exactly in invoices, as the customs regulations are very rigid.

*La Guayra*.—Shoes are very light and of fancy French patterns. As large feet are rare, women's sizes from 1's to 3's, and men's from 5's to 7's, inclusive, are most suitable for the market. Women's handsome sewed shoes, made to measure, cost from \$3 to \$4, and gentlemen's shoes of like style cost from \$4 to \$5. They are cheaper and more elegant, though lighter and less serviceable than American shoes. Eight out of ten of the Venezuelans wear, however, a kind of sandal called *alpargatas*, made of leather sole and cotton-webbing upper; they cost 50 cents per pair, and are cool and comfortable. Nice shoes are a luxury enjoyed every day by the upper classes, and by the middle classes only on Sunday, while the common people never have any. No shoes are imported or exported.

## BRITISH GUIANA.

### REPORT OF CONSUL FIGYELMESY.

#### TARIFF.

On leather, boots, and shoes, 7 per cent. ad valorem.

#### LEATHER.

Leather is not manufactured in this colony, and there are no tanneries. The hides and skins are imported from England, the United States, France, and Germany.

The imports of leather are various, such as sole-leather, harness-leather, enameled hides, japanned split hides, calf-skins, sheep-skins, roan skins, basil skins.

The values of the leather, and countries from whence imported during the year 1884 :

Great Britain .....	\$17,927 92
United States .....	3,660 41
France .....	1,378 70
Germany .....	100 72

#### AMERICAN LEATHER.

Leather of American manufacture compares favorably with leather manufactured in other countries. American leather suits this market fairly well, although there are certain faults to be found with it. Messrs. Hermann Conrad & Co., who deal largely in leather, state that—

Drawbacks to the importation of American leather are: (1) The prices are higher than the same qualities of English leather; (2) freight from America is higher than from England; (3) the credit obtained in England is for a longer period, and (4) the wants of the market are more studied by English manufacturers.

The same firm also states that prior to the year 1880 the Americans had nearly the exclusive monopoly of the sole-leather trade here, but

that the trade has now dwindled away on account of not having the right men to handle this class of goods, and the English, with their eyes open, have placed this branch of business in the hands of those qualified to push it with a successful result. They state, further, that "if the American manufacturers would give better inducements to the largest importers and dealers in leather, there is no doubt that the scale could be turned. It is singular that leather of American manufacture can be purchased in England for less money than by direct importation from the United States." This knowledge is from actual experience.

Messrs. Park & Cunningham state that—

American oak-sole suits this market, being easier to work up and cheaper, but the quality is not to be compared to English oak-sole. At one time we imported largely, but the trade is now in the hands of commission merchants. A very low price prevents good American leather from being imported, consequently it is faulty. If prices would improve, quality would also.

M. N. Rieck, merchant and importer of leather, states that he imported in 1884 from England 10,957 pounds of sole leather and calf-skin, costing \$3,392.56.

The best means for the introduction of American leather into this market and for the advancement of its trade in general would be to send out a competent and duly-authorized agent from some large manufactory, bringing with him samples, price-lists and drawings for distribution and selection.

The names of the merchants at this place who import leather are: Messrs. Hermann Conrad & Co., Messrs. Park & Cunningham, M. N. Rieck, Messrs. Smith Brothers & Co., Booker Brothers & Co., and Donald Currie & Co.

#### BOOTS AND SHOES.

There are no factories for shoemaking in this colony. One German firm here, M. N. Rieck, makes boots and shoes to a small extent; hand sewing-machines are used at his establishment, but the output cannot be ascertained. There are also many cobblers among the Portuguese and colored inhabitants here, their work all being done by the hands.

The principal kinds of boots and shoes worn here are gent's calf elastic sides boots and Oxford lace shoes; ladies' elastic sides boots and shoes of imitation kid, black cloth, and black and white satin. The styles vary according to fashion; at the present time narrow-pointed toes are in vogue. "Balmoral," or lace boots, "Bluchers," "Lorne," are the names of some of the styles. The Germans and French are manufacturing styles that are suitable for the English market.

The sizes worn here are :

Ladies'.....	1's to 8's
Gent's.....	5's to 10's
Children's.....	2's to 7's
Boys' and girls'.....	{ 8's to 13's 1's to 4's

A greater portion of medium sizes are generally ordered.

Boots and shoes are imported from England, the United States, France, and Germany. The importations of boots and shoes in 1884 were from the following countries :

England and Scotland.....	\$128,302 64
United States.....	6,176 60
France .....	759 99
Germany, Madeira, Nickerie (Dutch Guiana), and Hong-Kong, in very small quantities—value .....	269 43

## AMERICAN SHOES.

Messrs. Hermann Conrad & Co. state that—

The importations of boots and shoes from America to Demerara have nearly ceased. This is caused by the trade falling into the hands of certain dealers who import an inferior and cheaply-made article called "American make," which naturally condemns the actual American-made article as being inferior in quality, &c. This fault is to be attributed to agents coming here and taking orders from small dealers who do not represent the market; hence the result that American manufactures have come into disrepute.

If manufacturers would first find out the oldest, largest, and most reliable firms of the colony in this trade, and give a good inducement to represent them, there is no doubt that with their experience in colonial wants they would take every pains to give them full information, which would be of material value to the manufacturers and place American goods on their merits, and so enable them to compete with the manufacturers of other countries.

These merchants further state that at present the American goods shipped here do not meet the requirements of this market, being unsuitable in style and inferior in the materials used.

Messrs. Park & Cunningham state that—

We have not succeeded with American boots or shoes in gent's and ladies'. In children's we have done better. The former kinds do not stand the climate, soon becoming very dry and hard. The finish or dressing is also faulty, and the soles are not properly made. Last year we imported from England 1,313 pairs of boots and 2,765 pairs of shoes, being about one-half of our usual quantity. Owing to the very dry and hot season our sales were dull. The same year we imported from America 593 pairs of boots and 1,740 pairs of shoes.

From a third firm, Messrs. Smith Brothers & Co., I obtained this information:

Boots and shoes of American manufacture are suitable for this market as regards styles and shapes. Where American boots and shoes have been found by us to be faulty is as to their values compared to English. As to how the values of American boots and shoes are to be increased, it is a matter for the makers themselves to decide. We can only say that at present their values are under the English. Our orders for boots and shoes go principally to England, although New York is a nearer market.

M. N. Rieck said that he imported in 1884 7,400 pairs of boots and shoes from England and Scotland, costing \$8,709.44. The best means for the introduction of boots and shoes here, and for the advancement of that trade, is given in reply to the same question in regard to leather.

## IMPORTERS OF BOOTS AND SHOES.

Messrs. Hermann Conrad & Co., Messrs. Park & Cunningham, Messrs. Smith Brothers & Co., M. N. Rieck, Messrs. Booker Brothers & Co., Messrs. Donald Currie & Co., Messrs. Playfair & Co., Messrs. Collier & Sons., R. H. McGowan, D. H. McGowan.

I have been told by a partner of the firm of Smith Brothers & Co., that "the same kind of boots you have to pay \$2 for in the United States, you can purchase here for \$1.44." He also informed me that he visited a boot and shoe factory in Boston and pointed out the defects in their manufacture thus, "Soles too broad; heels and insteps too low," and that the leather quickly turns red and gets dry, and he advised them to remedy it.

I have to state that I have consulted the merchants named in the foregoing, both on the leather and on the shoe trade, and I have received information from Messrs. Hermann Conrad & Co., Messrs. Park & Cunningham, Messrs. Smith Brothers & Co., and M. N. Rieck, who are the principal importers of leather, boots, and shoes here; the other mer-

chants import those goods also, but they are disinclined to give any information on the subject, and have their own firms and agents in England, who ship to them direct.

I beg to recommend Mr. Joseph H. Tengely, a citizen of the United States, who has lately commenced business here as a commission merchant, and who deals only in American goods; he will act for any manufacturing house in the United States. His charges on the sale of leather and leather goods are as follows: Import duty, 7 per cent. ad valorem; cartage, fire insurance, storage, &c., 2 to 3 per cent., not more; discount,  $1\frac{1}{2}$  per cent. for three months, or 6 per cent. per annum; guarantee on sales, 2 per cent.; commission on sales, 5 per cent. Say total charges exclusive of duty and discount, from 9 per cent. to 10 per cent., not more.

#### PACKING.

In regard to packing I have to state that sole leather is generally packed in bale of about 100 pounds in weight. Calf-skins, sheep-skins, and basils are packed in bales of 50 skins each. "Enameled leathers and roans are packed in rolls with thin paper placed between each skin to prevent them from adhering to each other; then the whole should be tinned and cased up. This package should be water tight." Harness leather is packed in rolls and cased up.

Boots and shoes should be packed thus: Each pair of boots and shoes ought to be put in a pasteboard box, with size marked outside of the box, and about two dozen of these boxes should be the complement to one case.

Respecting the manner of shipping goods from the United States to this port, steamers are considered the best means, as they make the voyage quicker and the goods arrive new and fresh.

There are now two British steamers running regularly every month between New York and this port. They are named Barraconta and Moruca, chartered by Messrs. Leaycraft & Co., of Pearl street, New York; these offer good opportunities for shippers.

PH. FIGYELMESY,  
Consul.

UNITED STATES CONSULATE,  
*Demerara, June 13, 1885.*

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### DUTCH GUIANA.

#### REPORT OF VICE-CONSUL BARNETT.

#### TARIFF.

Leather, 5 per cent. ad valorem.

Boots and shoes, 6 per cent. ad valorem.

#### LEATHER.

There is no leather industry in this country. Now and then a very small number of salted hides are exported—as, for instance, in 1883, \$800 worth were sent to Great Britain, and, in 1884, 100 hides, representing a value of \$214.48, have been sent to the United States. The total value of sole and patent leather and calf-skins imported in 1882

and 1883 amounted to \$17,000, of which \$16,000 worth came from the Netherlands alone, and the balance from Great Britain and France.

From the foregoing it will be seen that no leather is imported here from the United States, and I am therefore unable to render any information relative to American leather in particular.

I know no better means of introducing a trade in American leather than to make consignments to traders.

Merchants here do not engage in the import of a special article. All are general dealers. After consulting several I gather that none consider it likely that the leather trade could be carried on here to such an extent as would make it worth their while to give it their special attention, and the terms upon which they would act for American or any other houses would be for at least  $7\frac{1}{2}$  per cent. commission, sales guaranteed.

#### BOOTS AND SHOES.

The factory system of shoemaking is not carried on here at all. There are about six ordinary shoemakers, and who each work with but one sewing machine and about four journeymen. The others are all cobblers.

The class of boots made here is inferior; the styles generally worn are elastic sides; the shapes are divers and the sizes vary as usual; but the population consisting mostly of negroes, the larger sizes find more customers here than in countries of non-African population.

The value of the imports of boots and shoes amounts to about \$35,000 per annum; more than the half thereof comes from the Netherlands, and the other half is shared between Great Britain and France in about equal proportions.

My replies under section 1, with regard to American leather, the best means of introducing a trade therein, and relative to those who would be likely to engage therein, are equally applicable to American boots and shoes.

#### PACKING, ETC.

Boots and shoes are generally imported here packed in trunks. The opportunities of shipping goods in general from the United States direct are extremely limited. There are but four merchants who import goods direct from the United States, chiefly breadstuffs, lumber, and provisions, and an arrival from the United States may be said to occur at intervals of about one month. The carrying trade from the United States is therefore practically monopolized by them. The only other way of shipping is either to Demerara, and from there by the monthly steamers of the Compagnie Général Transatlantique, or to Curaçoa and from there by the monthly steamers of the Koninklyke West Indische Maildienst.

HENRY BARNETT,  
*Vice-Consul,*

UNITED STATES CONSULATE,  
*Paramaribo, June 12, 1885.*

**ECUADOR.****REPORT OF CONSUL-GENERAL BEACH.****TARIFF.**

Leather.....	per kilogram..	\$0 20
Brogans .....	do.....	40
Men's fine shoes.....	do.....	80
Ladies' and children's fine shoes.....	do.....	60

The population of Ecuador, composed of Indians, *cholos* (a mixture of Indians and white blood), native whites, and foreigners, is estimated to be 1,000,000. The Indians comprise one-half of the total population and the *cholos* about one-fourth. The Indians go barefooted; the *cholos* wear sandals but no shoes; so that the whites alone are consumers of leather.

The sandals in general use are made of small rope of the fiber of the cactus, which is sewed together in the form of a sole, and held on the foot by strips of cloth or strings. They retail for about 25 cents a pair. The cactus fiber is very strong and durable, and sandals made of it stand much hard service.

**LEATHER.**

There are no statistics by which the extent of the leather industry can be shown. All of the sole leather used in Ecuador is made in the country, and a small surplus is exported to Peru. The hides cost at the tanneries from \$1 to \$6 each, and the price averages about one-fourth lower in the mountain than in the seaboard provinces.

The tanning is chiefly done with the bark of the mangrove tree, of which the lower provinces have an abundant supply. The quality of the leather is inferior to that tanned abroad. Calf, patent, kid, and goat leather are imported to some extent. Calf-skins have been imported in a limited quantity from the United States, and have proved fairly satisfactory; but the French leather is considered better prepared, and is given the preference.

The best means to increase the trade in American leather will be to make an article that will compete successfully with the French leather. Among leather dealers in Guayaquil are Henriquez & Jones (an American firm) and E. Rosay, a dealer in shoe stock and materials.

**BOOTS AND SHOES.**

The factory system is not known in Ecuador, though some large shoe-making machinery is used at Quito by the firm of Cararher & Loderstrom (an American-English firm). Some sewing-machines, principally from the United States, are also employed.

The shoes in use are made of calf, kid, goat, and patent leathers, and in the styles of Congress, balmoral, button, and low shoes. The people have high insteps and short thick feet. About one-fourth of all shoes used are imported from the United States and France, but the French styles prevail. The imported shoes are chiefly for women and children. Leather boots and rubber shoes brought from the United States have a small sale; and while the workmanship and quality of boots and shoes imported from the United States are considered superior, the styles are inferior to the French, and not so well adapted to the feet.

The jobbers in shoes at Guayaquil are N. Osa & Co., and Francisco J. Icaza.



Leather should be shipped in zinc-lined boxes and the boxes should be strapped with hoop iron. All boxes of shoes should be well strapped, as goods are subjected to severe usage in the several necessary handlings.

HORATIO N. BEACH,  
*Consul-General.*

UNITED STATES CONSULATE-GENERAL,  
*Guayaquil, July 8, 1885.*

### BRAZIL.

Consul William A. Preller, Rio Grande do Sul.  
Consul Robert T. Clayton, Para.  
Consul John B. Weaver, Bahia.  
Consul Henry L. Atherton, Pernambuco.

### TARIFF.

Cents.

Leather 20 per cent. ad valorem.	
Boots and shoes made of any kind of leather, below 22 centimeters in length.....pair..	36½
Above 22 centimeters in length.....do...	97½
Boots and shoes made of linen, cotton, or similar material, below 22 centimeters in length.....pair..	24½
Above 22 centimeters in length.....do...	60½
Shoes made of any kind of leather and linen, cotton or similar material, below 22 centimeters in length.....pair..	15
Above 22 centimeters in length.....do...	42½

These duties are calculated at the present rate of exchange, and therefore small differences occur with the fluctuations in exchange. It is probable that within a short time the duties on all imports will be increased by at least 5 per cent., and perhaps by 10 per cent.

*Table of import duties on shoes and leather at the port of Para, Brazil.*

[Values in Brazilian reis.]

Shoes and boots.	Length of sole.	
	Nine inches or under.	Over nine inches.
High-laced or buttoned boots:	<i>Per pair.</i>	<i>Per pair.</i>
All leather .....	. 906	2 276.
Upper of cotton or linen.....	. 644	1. 610.
Upper of silk or part silk .....	2. 415	5. 635.
Shoes or low-buttoned boots:		
Leather, cotton, or linen.....	. 386	1. 127.
Silk or part silk .....	1. 127	2. 415.
Slippers:		
Leather, cotton, wool, or linen.....	. 241	. 386.
Silk or part silk .....	1. 127	2. 415.
With wooden soles .....	. 580	. 580.
Riding boots .....	9. 000	9. 000.
Ordinary top-boots .....	6. 440	6. 440.
Leather.		Per kilo.
Sole leather .....		. 483.
Buff or uncolored leather .....		. 483.
Black or other colored leather .....		. 805.
Patent or enameled leather .....		1. 932.

NOTE.—One thousand reis Brazilian are equal to 36 cents. The manufactures of all countries are assessed alike.

## RIO GRANDE DO SUL.

## REPORT OF CONSUL PRELLER.

## LEATHER.

There are numerous tanneries in this province, mostly worked on a small scale, and principally by Germans.

I find it impossible to ascertain the exact number, but estimate it between 50 and 60 (of which four are in this town), situated in the city of Porto Hegre, and in the towns of Pelotas, Jaguarão, S. Leopoldo, Hamburger Berg, S. Lourenço, Jaguarão, as well as in every colony, to a greater or smaller extent.

Hides are easily obtainable, the chief industry of the province being that of cattle-breeding. The cost varies according to the demand at the ports of shipment (Rio Grande, Pelotas, and Porto Hegre), where dealers collect the dry hides as they come in from the camp, or at the various saladeros or establishments where the cattle are slaughtered and the hides salted. As a rule the dry hide is used, the salted hide being preferred to the green on account of the climate and liability to decay.

The cost to-day (estimating the milreis at 35 cents), is 31½ cents per kilogram for the dry and 7 cents per pound for the salted hide. Of the latter description the heavy ox hide is generally in demand for export to Europe.

## MATERIALS USED IN TANNING.

These are found in abundance in the native forests, and I have taken their names from the catalogue of the Exposition of Porto Alegre of 1881.

Bark of the tree Camboim (*Eugenia*).

Bark of the tree Guapor.

Bark of the tree Capororoca.

Bark of the tree Acouta cavallo (*Lutrea grandiflora*).

Bark of the tree Cinnamono bravo.

Bark of the tree Canellinha.

Bark of the tree Augico (*Acacia augico*).

Bark of the tree Guabiju (*Eugenia guabiju*).

Bark of the tree Camboata.

Bark of the tree Araca guajuvira.

Bark of the tree Grapea punha (*Apuleia precor*).

Although there is no want of good bark for tanning purposes, the large production of cattle, and consequent industry in the preparation of hides, necessitates the culture of trees whose bark may be rich in tannin.

During the year 1881 the Government took some steps in this direction, importing and distributing seeds of the so-called "Wattle tree" of Australia, one of the best known for the purpose, and already cultivated in North America. The nurseries look well, some plants being 10 inches high.

## PRODUCTION AND IMPORTS OF LEATHER.

Under this head I cannot obtain any reliable or even approximative information, for no official data are published. Sole leather finds consumers to a very large amount in this province; still there is a consider-

able surplus for exportation. From the catalogue referred to are taken the following:

*Exports to the River Plate.*

Year.	Sole leather.	Upper leather.
1875.....	\$10,645	\$3,030
1876.....	14,465	3,415
1877.....	17,140	2,800
1878.....	14,760	3,500
1879.....	12,120	23,300

These statistics are very deficient, but serve to give an idea of the tanning industry of this province, and would be more to the point if regular statistics were kept. The output to Rio de Janeiro is, I believe, fully as large if not larger, and increasing.

The importation of leather is not important on account of the local production, and is limited to calf, goat, and kid, with some Russian for the upper leathers of the better qualities of boots and shoes. Supplies are drawn principally from France, and to a less degree from Germany, Switzerland, and England. It is quite impossible to estimate the value of foreign leather imported.

**AMERICAN LEATHER.**

Imports from the United States are nil so far, as the article is unknown. Our principal importer observed to me that he had frequently thought of sending for samples and price lists to ascertain the comparative value, but ought not the initiative to come from the manufacturer?

The best means for the introduction and enlargement of trade in American leather would be, it seems to me, for the manufacturer to send out a sample lot on consignment to some house of good standing, with instructions to sell at once, make the article known as widely as possible, and on the strength of its reputation procure and forward orders. Sole leather must not be sent, but only good light upper descriptions.

**BOOTS AND SHOES.**

The factory system is not carried on in this province, although I am informed that it was attempted several years since with American machinery, but fell through for want of capital and experienced work-people. Boot and shoe making is however a very important industry in every town and village, the only machinery employed being the sewing machine, much work, perhaps the bulk, being done by hand. Journeymen are not well paid, however, not over \$15 to \$16 per month with their food, and prefer to work by the piece at their own terms as occasion offers.

Here, as in South America generally, the French and English styles of dress in every variety are closely copied, and what with the constant steam communication via Rio de Janeiro and Montevideo (whence we have 10 and more arrivals per month), any change in fashion is rapidly made known and novelties sent out. Large stocks are no longer held of the imported descriptions. The principal supplies come from the large factory of C. F. Bally, of Schoenenberg, Switzerland, whose manufactures are placed here through the medium of Mr. W. Heidtmann.

This firm gets its stock from Montevideo, where the Swiss factory has always a depot. In Mr. Heidtmann's store there are tables with some 150 to 200 pairs of samples. Dealers choose from these, give their orders, and receive their indents (from Montevideo) in eight to fifteen days.

Boots and shoes made in this province are not exported. Prices rule for men's shoes from \$1.50 to \$3.50; men's half-boots from \$2.50 to \$4.80; men's riding boots from \$8 to \$12; ladies' shoes from \$1.25 to \$4; ladies' half-boots from \$2 to \$5; ladies' high boots from \$3 to \$6, at retail, as per quality and finish. A wooden-soled clog, called tamareo, is much worn by colored people and lower classes, costing from 25 cents to \$1, according to quality.

Imports of boots and shoes are drawn, as before said, principally from Switzerland, but considerable supplies come from England and France, and lately from Austria.

From the United States, strange to say, it is many years since any have been received. Merchants say the cost is too high and the delay of transport a great obstacle. This last will no doubt soon be remedied with more frequent steam communication, but manufacturers must show their goods in the real article, and not on paper, if they really wish to get orders.

#### DEALERS IN LEATHER AND BOOTS AND SHOES.

W. Heidtmann, Rio Grande and Pelotas; Luchsinger & Co., Rio Grande and Pelotas; Thomsen & Co., Rio Grande; Holtzweissig & Co., Rio Grande; Antonio Lemos, jr., Rio Grande; Antonio M. O. Rey, Rio Grande; João Gonz. Valladas, Rio Grande (leather); Antonio Dias da Rocha, Petotas; Huch & Co., Porto Alegre; H. Fraeb, Porto Alegre and Rio Grande; Duval, Porto Alegre.

The conditions are usually 10 per cent. commission to cover del credere, storage, and fire insurance. Goods should be packed in paper boxes of one dozen for boots and shoes neatly labeled, with description and assortment.

WM. A. PRELLER,  
*Consul.*

UNITED STATES CONSULATE,  
*Rio Grande do Sul, July 15, 1885.*

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#### PARÁ.

#### REPORT OF CONSUL CLAYTON.

#### LEATHER.

Only one small tannery exists in the Amazon Valley and that is in the city of Pará. Sole leather and goat-skins are imported almost exclusively from the Province of Ceará on account of the cheapness of price; but they are of wretched quality. Patent leather generally bears the mark of German manufacturers.

Upper leather is imported mostly from France, and in quality is very light kip and light calf, with a showy black finish. The only leather imported from the United States is sheep-skins; the reason given by the dealers for not importing more is that the prices for the American article are higher than those of Europe.

## BOOTS AND SHOES.

There are no shoe factories in the Amazon Valley; most shoemakers work in their own shops and on their own account. They make shoes and gaiters to a small extent, but they produce mostly a rough sort of slipper or sandal which has a leather or wooden sole, and supplies almost the entire demand for out door-foot wear in the interior. These slippers have a heel of the same material as the sole, but the upper leather under which the toes are inserted reaches only half-way to the instep. In these shoes the light stitching is done with ordinary sewing-machines. The rest of the work is done by hand. The better qualities of foot wear are imported from Europe.

The following table shows the imports of leather, boots, and shoes into Pará for the three months ending March 31, 1885:

Articles.	Whence imported.	Amount.	
		Quantity.	Kilos.
		<i>Pairs.</i>	
Boots .....	United States.....	208	.....
Do .....	England .....	1, 649	.....
Do .....	France .....	1, 125	.....
Shoes .....	United States.....	90	.....
Do .....	England .....	1, 659	.....
Do .....	France .....	1, 415	.....
Slippers.....	United States .....	241	.....
Do .....	England .....	5, 255	.....
Do .....	France .....	1, 748	.....
Leather and articles made of leather.....	United States.....		80
Do .....	England .....		345
Do .....	France .....		500
Rubber shoes .....	United States.....	103	.....
		<i>Number.</i>	
Belly-bands .....	England .....	102	.....
Cruppers.....	do .....	36	.....
Sheep-skin mats.....	do .....		74
Leather cravats .....	do .....	1, 000	.....

Besides this port, the only other city in the Amazon Valley that imports directly from foreign countries is Manaus, 1,000 miles up the river. The amount of its imports are estimated to be about one-fifth of those of Pará. About 90 per cent. of the boots and shoes imported are consumed in these two cities, 10 per cent. only being sent to the smaller villages.

Carpet slippers come from France and England, but the slippers mostly used are made in Portugal from a coarse, hand-made woollen braid woven into a moccasin-shaped, pouch and fastened to a rough leather sole. Although they are the ugliest looking things imaginable, they are the indoor foot-wear of all classes who do not go barefooted.

Top-boots are seldom seen. Gentlemen wear almost exclusively gaiters, buttoned boots, and low-quarter shoes, the greater portion of which come from England. Ladies' boots and shoes come from England and France. The style of gentlemen's wear is very light and elegant, though plain compared with the styles for ladies, which are fancy, flashy, and tinsel, with stilt heels and ornamented with ribbons, &c. Ladies' boots and shoes are of all colors. The plainest are of light black leather stitched with white thread in fancy figures, and generally with open work cut through the leather to show the instep and top of the foot. For the more fancy styles, bronze leather, silk, and velvet of various colors are used, with fringe, tassels, buckles, and rib-

bons in indescribable combinations. The same may be said of children's shoes as of ladies as to ornaments and styles.

#### AMERICAN GOODS.

A few children's shoes come from New York, and these are the only shoes of any sort imported from the United States. They are shoes that lace up about the ankle, with and without metallic tips. They would find a more ready sale if they had more hooks and less eyelets for the strings, and if the circumference at the ankle were from one-fifth to one-fourth greater.

The reasons given for not importing from America are that the goods are too heavy, not elegant, and cost about 30 per cent. more than European goods. The complaint is made that the machine-sewing on of the soles is not durable, and that they soon come off. But the fact is that the samples received here from the United States are generally more durable than the average of European manufacture.

It seems that the best method of introducing American goods would be for the manufacturers to establish wholesale and retail agencies at a few of the prominent points in Brazil, and from these centers study the styles and tastes of the people, sending orders and instructions to the manufacturers. Samples are often sent to this market, but they generally remain on the shelves until some foreigner finds and gladly buys them, or they are sold to some Brazilian at less than cost. The American manufacturer must also be more liberal in his terms; he generally demands cash for his goods, while his European competitor gives from three to six months' credit. In view of this state of things the reliable dealers show no inclination to undertake to introduce American manufactures.

The method used in packing shoes for this market is to put each pair into a neat pasteboard box, each shoe being wrapped separately with tissue paper. These pasteboard boxes are shipped in cases containing sometimes as high as two hundred pairs.

The three principal dealers in shoes and leather, in Pará, are Antonio José Soares, José Dias de Souza & Co., and Joaquin, Pedro & Co. These firms do the largest part of the importing and supply the smaller retail dealers.

ROBT. T. CLAYTON,  
*Consul.*

UNITED STATES CONSULATE,  
*Pará, July 14, 1885.*

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#### BAHIA.

#### REPORT OF CONSUL WEAVER.

#### LEATHER INTERESTS.

The shoe and leather industry of Brazil is mostly confined to the exportation of hides and the importation of leather, which is made by hand into shoes in little shoe-shops.

No machinery of any kind, as far as I am aware, is being used in the manufacture of shoes in this city or province.



## IMPORTS.

The importation of shoes is so small that it does not comprise an item in the report of the last year from the custom-house.

The importation of leather, skins, and hides for the year ending on the 31st December, 1884, amounted to about \$363,659.34, on which a duty of \$171,922.50 was paid. The following is a list of the countries that furnished the same, with the amount furnished by each:

Germany.....	\$11,590 26
Belgium.....	2,298 03
Eastern States.....	67 20
United States.....	3 47
France.....	124,672 38
Great Britain.....	122,350 56
Portugal.....	102,677 44
Total.....	<u>363,659 34</u>
Duties on same.....	<u>171,922 50</u>

In this climate shoes are a matter of luxury more than of necessity amongst the poorer classes of the people, and, in my opinion, the cheap, serviceable shoes that are manufactured in the United States would not find a ready sale here. As you will see by the inclosed statement the United States sent to this port shoes or leather only to the value of \$3.47, whilst France, England, and Portugal have each made shipments of more than \$100,000.

Owing to the very low price of hand-made shoes, which are made in the little shoe-shops here, I think the outlook for the sale of American shoes in this city is not very flattering.

JOHN B. WEAVER.

UNITED STATES CONSULATE,  
*Bahia, July 18, 1885.*

## PERNAMBUCO.

Consul Henry L. Atherton transmits, under date July 22, 1885, the following statement respecting the leather interests of Pernambuco, prepared by a business firm of that place:

## THE CONDITION AND EXTENT OF THE LEATHER INDUSTRY.

The condition of the leather industry in the Province of Pernambuco is very bad, most of all leather used being imported from Europe.

The hides and skins tanned here are of a very inferior quality, and only used for the cheapest work. They are obtained from the Provinces of Pernambuco, Alagoas, Parahyba do Norte, and Rio Grande do Norte, but most of them are exported to Europe and America. Ox-hides of about 12 kilograms cost to-day about \$3 each, and goatskins of about  $\frac{1}{2}$  kilogram each cost to-day about 46 cents each.

Large tanneries do not exist, and all hides and skins are tanned by private persons, using a vegetable material, tanning very quickly, but at the same time burning the leather. No European or American market will buy leather tanned in Brazil on this account. Leather is only manufactured in very limited quantities and consumed in the country.

## IMPORTS OF LEATHER.

Leather imported here is principally marroquin, and all other qualities are used in very limited quantities. The marroquin is nearly all supplied by France, and we state the amount imported during the last two years :

Date.	Quantity.	Amount of duty.	Value.
	<i>Kilos.</i>		
June, 1883, to June, 1884.....	29,220	\$10,374	\$51,870
June, 1884, to June, 1885.....	18,450	6,589	32,945

England and Germany supplied leather of different qualities as follows:

Date.	Quantity.	Amount of duty.	Value.
	<i>Kilos.</i>		
June, 1883, to June, 1884.....	7,817	\$3,028	\$15,140
June, 1884, to June, 1885.....	9,273	3,320	16,600

Duties and values are quoted in American currency, and the value is invoice price without adding the duty. No leather has ever been imported from the United States.

## INTRODUCING AMERICAN LEATHER.

To introduce American leather into our market it would be necessary for manufacturers to send full samples of all kinds made, quoting at the same time the very lowest prices. The samples must be of the exact quality as the goods furnished, and not specially prepared. Many American manufacturers expect to make large profits on their sales to Brazil, forgetting that it is an open market, and that European competition must be met and overcome.

## BOOTS AND SHOES.

In Pernambuco, and the provinces depending upon Pernambuco, not a single factory exists. We have a large number of shoemakers, but these only furnish badly finished and inferior goods.

The ladies' boots and shoes are generally made and worn of the so-called French style—high heels, very light and very showy; not of very good quality. Gentlemen's boots and shoes are made more after English fashion. The American boots and shoes would do very well for our market if prices could be arranged to meet competition successfully. The shoes would have to be marked in French measurement and packed in the European style.

The customary sizes for ladies run from 24 to 39 centimeters, and for gentlemen from 25 to 41 centimeters.

No shoes manufactured here are exported.

## IMPORTS OF BOOTS AND SHOES.

We give the import and value of same during the last two years, as follows:

Countries.	Pairs.	Amount of duty.	Value.
June, 1883, to 1884:			
France .....	193, 215	\$69, 004	\$225, 500
England .....	75, 591	28, 995	85, 000
Portugal .....	39, 298	5, 231	14, 000
June, 1884, June, 1885:			
France .....	106, 608	35, 390	119, 800
England .....	56, 334	20, 750	62, 100
Portugal .....	45, 887	5, 800	17, 800

Duty and value both quoted in American currency, and value is invoice cost without the duty. The duty is charged at about 30 per cent. of cost. No American boots and shoes come to our market.

The only way we can see for American manufacturers to introduce their make is to send samples to a responsible house who will take the trouble to show these samples to the trade and get the different opinions from dealers. We have no doubt that many styles do not need to be changed at all, and that American manufacturers can successfully compete with Europe. Great care would have to be taken that all instructions regards packing, numbering, and invoicing would be carried out to the letter, as the slightest mistake will lead to heavy fines in the custom-house.

We would not recommend for manufacturers to do business direct with dealers, but would advise them to make arrangement with a house posted about the trade and standing of the different dealers, paying them an agency commission for assistance rendered in working up a trade. Great care would have to be used in packing the goods. American manufacturers have a very bad name here, on account of their careless way of packing, shipping, and marking goods.

The shipping would be best done by a commission-house in the United States who are well informed as regards these matters.

American manufacturers are generally not aware how the trade is done in Brazil by European makers, and expect to do business exactly as it is done in the United States. All European manufacturers doing a larger business in Brazil appoint their agents. The agents have a stock of samples to sell from, and look after the general interests of their clients. All business done is on a credit basis, and as a rule bills are drawn due 90 days after arrival of merchandise in Pernambuco, making in all five months' credit; counting 30 days for the goods to come, 90 days here, and 30 days for the money to be returned.

The agents receive about 5 per cent. commission, and when accounts are guaranteed an extra commission of 2½ per cent. is charged.

## LIST OF IMPORTERS.

*Boots, shoes, and leather.*—Gomes de Mattos & Irmãos, H. Nuesch & Co., Augusto dos Santos & Co., Oliveira Bastos & Co., Parente, Vianna & Co.

*Leather only.*—Mendes Junior, & Co.

*Boots and shoes only.*—Albino Jozé da Cruz & Irmão, Thomaz Ferreira de Carvalho & Co., Satyro Serafim da Silva, Manoel de Barros Calvacanti, Francisco Ramos da Silva.

Considering the unsettled state of trade here, I should advise shippers to make arrangements with G. A. Amsinck & Co., of New York, of which H. Stolsenbach & Co., of this city, is a branch house.

## ARGENTINE REPUBLIC.

### REPORT OF CONSUL BAKER.

#### TARIFF.

The tariff of the Argentine Republic is not continuing, but undergoes an annual modification, the duty assessed on the imports corresponding to the amount of revenue which it is necessary to raise to meet the requirements of the national budget. In 1883 the duty on leather was 25 per cent. on the official valuation, and on boots and shoes 40 per cent. on the official valuation. In 1884 the duty on leather and boots and shoes was not changed. For the present year (1885) the duty on leather is 25 per cent., and on boots and shoes 45 per cent. From the Argentine tariff of valuations for the present year I make the following translations:

#### *Leather, skins, boots, and shoes.*

Articles.	Valuation.	Rate.
Calf-skins ..... kilogram..	\$2 00 to \$2 00	25
Goat-skins ..... do....	1 20 to 4 00	25
Kid-skins ..... dozen..	8 00 to 14 50	25
Sheep-skins ..... do....	7 00 to 18 00	25
Hog-skins ..... each..	8 00	25
Lamb-skins ..... dozen..	5 50 to 9 50	25
Horse-skins ..... each..	6 00 to 8 00	25
Cow-skins ..... do....	6 00 to 8 00	25
Sole-leather (from Paraguay or Brazil) ..... kilogram..	80	25
Sole-leather (from Europe, &c.) ..... do....	1 20	25
Carriage-leather ..... do....	1 80	25
Alpargatas ..... dozen..	2 00 to 7 00	45
Boots for men ..... do....	50 00 to 75 00	45
Boots for children ..... do....	30 00	45
Boots for infants ..... do....	8 00 to 26 00	45
Boots for women ..... do....	18 00 to 38 00	45
Gaiters or botinas for men ..... do....	26 00 to 54 00	45
Gaiters or botinas for ladies ..... do....	13 00 to 26 00	45
Shoes with wooden soles ..... do....	6 00 to 11 50	45
Shoes for women and for children ..... do....	8 00 to 18 00	45
Gum shoes ..... do....	2 50 to 6 00	45

These duties, up to the suspension of specie payments, were payable in gold; but since then, by a decree of the Government, all duties are receivable in paper currency, with 15 per cent. added. As the premium on gold now ranges between 35 and 45 per cent. this arrangement makes a considerable reduction in these custom-house duties. These duties are without discrimination, but are assessed alike on the manufactures of all countries, except, as will be seen, on the sole-leathers from Paraguay and Brazil.

## CATTLE INDUSTRY.

The Argentine Republic can scarcely yet be considered as a manufacturing country; and for its supplies of both leather and footwear, it is yet to some extent dependent upon the products of other nations. From the fact that the raising of cattle, sheep, and horses is the leading industry of the people, one would naturally suppose that, long ere this, there would have been a great development of the business of tanning hides and the production of leather for exportation. Such, however, is not the case. The number of cattle in the country is estimated as follows:

Horned cattle.....	15,000,000
Sheep .....	80,000,000
Horses.....	4,500,000

In the face, however, of these statistics, the tanning industry of the Argentine Republic may be considered as still in its infancy. Instead of exporting leather to other less favored countries, as with a little more enterprise it might be able to do, there is not yet enough leather produced to meet the home demand. A very large proportion of the hides and skins are sent abroad for a market in the natural state; and after being dressed or tanned, they are returned to the Argentine Republic as leather, or made up into boots and shoes, in quantities to meet the demands of the trade.

## EXPORTS OF THE MATERIAL OF LEATHER.

The extent of these reports will be seen from the following table, which I have made up from the official returns of the national statistical office for the last two years:

Articles.	1883.		1884.	
	Quantity.	Value.	Quantity.	Value.
Dry ox and cow hides.....number..	1,392,948	\$5,255,927	1,706,905	\$5,894,306
Salted ox and cow hides.....do....	517,270	2,890,443	642,804	2,923,002
Dry horse-hides.....do.....	38,211	57,450	72,325	134,763
Salted horse-hides.....do.....	221,156	540,912	209,126	418,963
Sheep-skins.....kilograms..	26,564,619	5,085,886	24,938,623	5,484,952
Goat-skins.....do.....	830,960	940,470	931,070	1,017,046
Carpincho-skins.....number..	22,701	22,704	35,143	17,572
Nutria-skins.....kilograms..	491,217	392,770	407,549	244,405
Other skins.....		65,960		118,115

## IMPORTS OF LEATHER.

From the same source of information I am able to give the following table of the imports of leather for the period from 1875 to 1884:

Year.	Value.	Year.	Value.
1875.....	\$222,620	1880.....	\$206,004
1876.....	138,781	1881.....	143,359
1877.....	203,483	1882.....	308,064
1878.....	249,849	1883.....	500,744
1879.....	200,617	1884.....	591,956

## SUPPLIES OF LEATHER FROM EACH COUNTRY.

Considering the resources of the country in the raw material, it is not so wonderful that the importations of leather into the Argentine Republic are so small, as that there should be any importations at all. The following table shows the amount of imports of leather which each country furnished for the last two years, it not being deemed important to go any farther back :

Country.	1883.	1884.
Germany .....	\$12,867	\$31,301
Belgium .....	26,805	62,295
Brazil .....	713	1,096
Spain .....	5,364	2,186
United States .....	1,902	31,101
France .....	348,678	164,603
Italy .....	9,568	7,716
Paraguay .....	21,883	176,854
Great Britain .....	65,444	103,440
Uruguay .....	3,674	1,886
Other countries .....	3,846	9,599
Total .....	500,744	591,956

It will be seen from these figures that the imports of leather from the United States are yet quite insignificant, the greater portion coming from France, England, and Paraguay. The leather from the latter country is mostly of the heavier varieties, much of it being sole-leather, while that from the other countries of Europe is calf and other fine leathers, for extra shoe-uppers.

## LEATHER PRODUCED IN THE ARGENTINE REPUBLIC.

In regard to the leather produced in the country—while the tanning industry is limited when compared with the stock which it might have to work on—yet it is not without some development. In the upper interior provinces, especially, the art of tanning hides was acquired at an early day after the conquest of the country by the Spaniards, from the very necessity of the case. The new inhabitants found it impossible to obtain supplies of leather and shoes, except through the port of Buenos Ayres; and the distance to be traveled in bullock carts was so great, the time occupied in these journeys to the coast was so long, and the expense which they entailed was so enormous, that the people were compelled to fall back on their own resources. And in the course of time tanning establishments were started in nearly all the principal centers of population.

## TANNING ESTABLISHMENTS OF THE INTERIOR.

The tanning of heavy leather has now grown to be one of the principal occupations of the northern provinces of the Argentine Republic. It has had to struggle, however, against difficulties unknown in the United States, on account of the climate, which frequently causes the putrefaction of the skins during the process of tanning; and it has become therefore necessary to abridge as much as possible the duration of the operation. It may be said with reference to most of these establishments that no national or modern methods are followed in the manufacture, but that the processes are as yet quite empirical. There are no



statistics, which I am able to discover, in regard to the number or extent of the tanning establishments of the upper provinces. They exist, however, at various points in the interior. There is a well-mounted yard in Rosario and another in the town of Santa Fé, in the province of the latter name. There are several in Paraná, one in Gualaguachú, one near Concepcion, and one in Concordia, in the Province of Entre Rios, all of which are in active operation and quite supply the local and neighborhood demand for leather. There also exist tanneries in Córdoba, San Luis, Mendoza, and Catamarca; but the most important establishments in the upper provinces are those of Tucuman and Salta. These turn out large quantities of sole leather, which finds a ready sale in this part of the Republic, and besides they supply the local demand for upper leather, harness leather, and saddle leather. In the town of San Luis there is also an establishment for the manufacture of morocco leather, the large number of goats in that province furnishing the skins. Its quality and color are said to be very good, and it finds a market both here and in other cities of the river provinces.

#### TANNERIES OF BUENOS AYRES.

In the Province of Buenos Ayres, outside of the city, there are now in operation twenty-one tanning establishments, with a total capital of \$247,500, and employing two hundred and fifty men. In the city of Buenos Ayres there are thirty-two tanneries, with an estimated capital of \$300,000, and employing upwards of three hundred men. These workmen are mostly Europeans, thoroughly skilled in the mysteries of their trade and capable of doing as good work as can be found elsewhere.

#### MATERIALS USED IN TANNING.

In regard to tanning materials, the country is lacking in both oak and hemlock. Neither of these trees, whose barks are in such general use in the United States and Europe, is indigenous to the Argentine Republic; and their places are filled by the barks of other trees. The nearest approach to the oak is the Algorrobo (carib tree), which in the slowness of its growth and general appearance somewhat resembles that tree; but its bark is not so rich in tanning properties. There are, however, in all the upper provinces, covering the uplands and mountain slopes, immense forests of other trees, some of which are much richer in tannin than the oak. Among these are the Curupy, found on the borders of the Paraná River; the Molle, found in great quantities in San Luis, Córdoba, and other provinces, whose leaves are greatly used; the Cibil, found in all the upper provinces, especially in Tucuman, Salta, Jujuy, &c. Indeed, there is hardly a locality which is not supplied with trees of tannin-producing qualities. The Sumac (*Rus coriaria*), which is not indigenous to this country, but is so generally used for tanning purposes in the south of Europe, no doubt could be readily naturalized here, and has already been planted in some localities with excellent results.

#### CHEMICAL ANALYSES OF DIFFERENT WOODS.

I have recently come into the possession of a paper prepared by Prof. Max Siewart, Sc. D., of Córdoba University, and published by the Argentine Academy of Sciences, giving his analyses of various woods of the country with reference to the tannic acid and the alkalis of soda

and potash which are found in their wood, their bark, and their leaves. The following table, which I have compiled with some care, gives the results in reference to some of the most important of the tannin-producing trees of the Argentine Republic:

Names of the trees.	Tannic acid contained in 100 parts, dried in the air.		
	Wood.	Bark.	Leaves.
Red cibil, young.....		9.20	6.60
Red cibil, full-grown.....		13.00	6.60
Red cibil, old.....		14.40	6.60
Red cibil, with carbonate of soda.....		15.50	6.60
White cibil, old.....	2.64	8.00	7.30
White cibil, inside parts.....		11.84	
White quebracho.....		12.00	27.50
Red quebracho.....		7.00	
Espinillo*.....	.56	5.84	.98
White nogal.....	5.00	6.40	2.74
Tipa.....		4.00	2.83
Lécheron.....		9.68	3.33
Cochuchin.....	6.13	4.36	
Lepacho.....	1.86	2.72	4.76
Cedro Argentino.....	5.61	6.83	
Mollo.....			19.02
Algorrobillo.....		4.60	21.11
Algorrobo.....	.35	2.40	.22

\* The shells which incase the seeds of this tree contain the remarkable quantity of 33.2 per cent. of pure tannin.

DESCRIPTION OF TANNIN-PRODUCING TREES.

In regard to some of the trees named in this table, a short description may not be out of place:

*The cibil.*—Both the red and the white cibil are varieties of the acacia, and, especially in the subtropical forests, grow to quite large proportions, sometimes reaching a height of 40 feet, with a diameter of 2 feet. The wood itself holds no trace of tannin. The bark contains more tannin than the oak; but the red cibil has the property of giving a characteristic red color to the hides, which especially appears when the tanning is completed and the drying commences. In heavy leather, however, I do not know that this is any objection. The white cibil is distinguished from the red by its leaves, which are more finely feathered, and by the facility with which its bark dries and ceases to take part in the circulation of the tree. It therefore results that the tannic acid is quite rapidly decomposed in the exterior bark, and becomes oxidized or withdraws to the interior as the bark dries. The proportion of tannic acid contained in the exterior as compared with the interior parts is as 1 to 10.

*The quebracho.\**—This tree (*Aspidosperma quebracho*) forms great forests in some portions of the interior. It is of the middle size, and its timber, which takes a fine polish, is applied to various purposes, among others, to the xylographic art. The most frequent variety is the white. The leaves are armed at their extremities with small thorns. The amount of tannic acid in the bark is about equal to that of the oak, whilst its leaves are much richer in tannin, containing as they do over 27 per cent. The tannin solutions of both bark and leaves are almost colorless, thus adding greatly to its value in the preparation of leather.

\* The word *quebracho* is a compound of the two Spanish words *quebrar* (to break) and *hecha* (an ax), and, referring to the extreme hardness of the tree, means “ax-breaker.”

*The espinillo.*—In the interior provinces this tree (*Acacia cavinia*) is found almost everywhere; but its wood and leaves contain but little tannin, while its bark, even if it contained more than it does, is so thin and so difficult to separate from the tree that it hardly answers for tanning purposes. Very great use, however, is made of the shells, which hold the fruit of the tree, they being very rich in tannin of the purest quality, and quite colorless.

*The molle.*—Neither the wood nor the bark of this tree contains tannin in any quantity. The leaves, however, are very rich in tannic acid, containing nearly 20 per cent. Unfortunately, the molle is but a small tree, and its leaves are quite diminutive, thus greatly increasing the labor of procuring them in large quantities. There is no color to the tannin from the leaves.

*The lecheron.*—In its leaves, its height, and its form, this tree greatly resembles the willow, and like it, it prefers a humid or marshy soil. Its name, derived from *leche* (milk), is due to its property, when a leaf or branch is cut or broken, of exuding a species of chyle. The bark contains only about 10 per cent. of tannin, but it merits attention from the fact that it is without color; and moreover, the tree has the advantage of being a very rapid grower and is easily propagated.

*The algarrobo.*—While the wood of this tree is of singular strength, and its different species are employed for almost every purpose for which wood can be used, neither its bark, wood, nor leaves, are sufficiently rich in tannin to be of great economical importance. Its fruit, however, furnishes food for both man and beast. The sugar embraced in the fruit is quite identical to that of the grape or the apple; and when fermented produces a very popular beverage. There is a black and viscous liquid, bitter to the taste, which when the tree is cut, exudes from the inner bark, which contains a large amount of tannic acid; but the quantity is too small to be of great interest to tanners. So, also, the leaves of the *algorrobillo* are rich in tannin, but they are not procurable in sufficient quantities.

The other trees mentioned in the foregoing table are only of secondary importance to the tanner, and hence are not deserving of special notice.

#### NO EXPORTS OF TANNING MATERIALS.

The business of exporting tanning materials to other countries, so far as I am advised, has never been attempted here. The trees—especially the cibil and quebracho—from which the tannic acid is most readily obtained, are to be found in unlimited quantities along the banks of the Upper Parana River, as also in the interminable forest of the Gran Chaco, which skirts along that river and the Paraguay, thus being accessible and handy to ocean-going vessels of ordinary draught. As I observe that during the last year there were imported into the United States from foreign countries tanning materials to the value of upwards of \$350,000, it might be worth while for our tanning establishments to investigate the facilities which the Argentine Republic offers, and the terms on which cargoes of bark, &c., could be shipped to the United States. Not that the tanning materials of the Argentine Republic can be said to be superior to the oak and hemlock barks of our own country, but if our resources are beginning to run short, it is well enough to know in time from what sources we may be able to obtain our requisite supply of tannic acid.

## NATIVE PROCESSES IN PREPARING LEATHER.

I am not sufficiently acquainted with the tanner's art to be able to give any satisfactory explanation of the methods usually employed in this country by which raw hides are converted into leather; or to draw any comparison between the processes here with those which our tanners make use of. I presume, however, that in the United States a large proportion of the work is done by machinery, and that the science of the chemist is to shorten as much as possible the time required for the proper action of the tannin upon the gelatine of the hide. Here almost all the labor is accomplished by hand, and the processes are tedious, especially in the upper provinces, where the tanning art has the same rude appliances which were in use three hundred years ago, the natives being satisfied to tan their hides after the same routine that their great-grandfather's employed. First, the raw hides are hung upon a rack or horizontal pole, and the particles of flesh remaining on the inner surface are scraped off with a long knife. Then the hair is removed from the outer surface by steeping the hides for about a week in lime-water, whereby the hairs become so loosened as to be easily scaped off or pulled out. After this some acid solution is applied to the hides to open the pores and soften the gelatine, and they are then plunged into sunken pits containing the "ooze" or liquid tannin, the hides being passed gradually from a weaker to a stronger solution, and ground bark is sometimes strewn between the layers. The natural action of the tannin seems to be very slow, and for heavy hides it not unfrequently takes from eighteen to twenty months to complete the work. When the pores have become thoroughly filled with the tannin, the hides are transferred to a *galpon*, or drying room, where they are hung up, and thoroughly beaten, rolled, &c., and the work is complete. I have already stated that many hides are lost during the processes by putrefaction, on account of the climate being so warm and the action of the tannin so slow.

## QUALITY OF ARGENTINE LEATHER.

In regard to the quality of the leather which is made in the Argentine Republic I am not able to express an intelligent opinion. At the late international exposition, held in this city, the leather exhibits of the different provinces were paraded with great satisfaction; and generally to the eyes of persons unskilled in the mysteries of boot-making they seemed to be all that could be desired. Certainly the sole leathers from Tucuman and Cordoba were wonders in the way of handsome specimens, while the calf and cow skins of Buenos Ayres in style and finish would have been taken for importations from France had not cards upon them explained that they were of "home manufacture." I am told, however, by experts that the sole leathers of the upper provinces are apt to be spongy and soft; in some cases even quite porous, owing to the fact that they have not been sufficiently impregnated with the tannin. And not much better opinions are expressed in regard to the upper leathers. Too often they are only half tanned or are in a half rotten state. Placed alongside of American leather, I am assured that the comparison is altogether in favor of the latter. There is, however, so little leather of the manufacture of the United States on sale in this market that there are few opportunities of contrasting the two. From the countries of Europe, and especially France and Great Britain, it is only the very finest varieties of upper leathers which reach this

port; and, of course, they are much in advance of what this country produces. The amount of leather imported, however, is of small account in the leather consumption of the Argentine people. The far greater part is the product of the country, and, good, bad, or indifferent, it goes into their manufactures of boots and shoes, harness, saddles, trunks, &c., and the people are satisfied with what they get.

#### BOOTS AND SHOES—THEIR IMPORTATIONS.

These industries have already a firm foothold in the country from the very necessity of the case, and, under the protection especially afforded by the Argentine Industrial Club, they are more and more making the nation independent of the surplus stocks of other countries. In the face of the increased population of the Argentine Republic from births and from immigration, the imports of shoes and foot-wear are not near so large to-day as they were ten years ago. This will be seen from the following table, which I have compiled from the returns of the Argentine national statistical office from 1875 to 1884, inclusive:

*Value of imports of boots and shoes.*

Year.	Value.	Year.	Value.
1875.....	\$1, 290, 383	1880.....	\$702, 645
1876.....	820, 188	1881.....	880, 653
1877.....	879, 784	1882.....	701, 406
1878.....	768, 622	1883.....	487, 252
1879.....	775, 618	1884.....	495, 048

#### THE COUNTRIES FROM WHICH THE IMPORTS COME.

The following table, also compiled from the returns of the statistical office, shows the countries from which were sent the importations of boots and shoes for the last two years:

Country.	1883.	1884.
Germany.....	\$6, 288	\$8, 946
Belgium.....	174, 698	194, 436
Chili.....	9, 050	42
Spain.....	4, 639	8, 776
United States.....	483	14, 576
France.....	142, 522	122, 777
Italy.....	1, 872	8, 821
Great Britain.....	96, 721	100, 744
Switzerland.....		4, 268
Uruguay.....	37, 281	23, 849
Other countries.....	11, 698	7, 813
Total.....	487, 252	495, 048

#### QUALITY OF THE IMPORTATIONS.

It will be seen from these statistics that France and Belgium have the command of the import trade in these lines of goods, furnishing about two-thirds of the entire importations. The ware from these countries, while quite attractive in outward appearance—being in great part hand-made—is yet in many cases the merest slipshod work, which has but little endurance. As these importations, however, have style and



beauty and make the feet look trim and neat, the Argentines are perfectly satisfied. The upper classes never wear shoes or boots after they have lost their form, but at once cast them aside for a new pair. They prefer to buy a cheap article often rather than a high-priced one less frequently, as the former uniformly looks the more tidy. I do not know but that after all their philosophy on this subject is deserving of some consideration. The importations from England are mostly of the heavier walking shoes, for which that country has become so famous. They find their greatest sale among the people of that nationality and in the "camp." They certainly are not pretty, but with their thick, broad soles and heavy uppers they can stand any amount of hard usage. The importations from the United States are too insignificant in amount to be referred to. I may say here, however, that in solid qualities they are far superior to anything I have seen on the market. Indeed they are too good to be properly appreciated. Being made by machinery, of course they have not the fine finish and nice appearance which characterize the French and Belgian shoes, but could they be made to reach the people who are in moderate circumstances and who desire boots and shoes that will last, I believe that we might succeed in establishing a considerable trade.

#### ARGENTINE SHOE MANUFACTORIES.

What is greatly interfering with the foreign trade in these lines of goods, however, is the constantly increasing development of the immense leather resources of the country. The material being directly at hand in unlimited quantities and at prices which have no duty to pay, the shoemakers here have the market pretty much to themselves. They can defy any foreign competition, especially as they have in the matter of tariff the influence of the Government on their side. There are now eight or ten large shoe factories in operation in this city and doing a very successful business. It is true they do not use the extensive machinery which the inventive genius of the United States has brought into requisition in these manufactures,\* but with approved cutting and sewing appliances they not only do quick work, but very good work. In addition to these establishments, the city and country are well supplied with smaller shoe manufactories, the entire *gremio* being organized into a society for their own mutual protection, which, with large means and ramifications throughout the Republic, is every year increasing the demand for home manufactured shoes and driving out the imported articles. In this city there are now 628 licensed shoemaker's shops, many of which employ from 10 to 25 workmen, while many families do custom work in their own houses for the different shoe-shops. In the Province of Buenos Ayres, outside the city, according to a recent census, there are 361 licensed shoemakers' shops, employing 1,553 workmen and with an invested capital of \$530,916. I have no statistics of any of the interior provinces. It is known, however, that in great part they not only produce their own leather, but manufacture their own shoes. The shoe stores of this country all keep a general assortment of ready-made boots and shoes in stock, but like-

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\* A few years ago an enterprise was started here to manufacture shoes on a very large scale; and the most approved machinery—including McKay's sole sewing machines—were sent out here from the United States; but owing to bad management, the establishment was soon bankrupt and sold out under the hammer. The machinery, I think, is now the property of the Government, and is used by the convicts in the penitentiary in the turning out of shoes for the army and navy.



wise invariably have shops attached, where custom work is done on orders. Not only the proprietors but their workmen are mostly foreigners, generally Italians or French, though other nationalities are also liberally represented.

#### FASHIONS OF FOOTWEAR.

The fashion of the boots and shoes worn in the Argentine Republic is for the most part in imitation of the French styles. The usual wear of both men and women is the short boot or gaiter, either laced or buttoned in front or with elastics at the ankle. I believe, in the United States, they are called the "Balmoral" and "Congress gaiter." Low shoes and "Oxford ties" are also very commonly worn, especially in the summer months. The shape of the shoes is exceedingly graceful, being narrow and pointed; frequently with elaborate stitchings on the uppers. The style of heels is conventional. Many, and especially the ladies, affect the very high heels, sloping down from the hollow of the foot, requiring them to adopt a "Grecian bend" which is not natural, and make use of a hobble which is not graceful. The ridicule, however, as well as the ill effects which these exceedingly high heels have occasioned, are now causing the fashion in some cases to go to the other extreme; and large flat heels, which, however they may look, are so comfortable in walking, are not unfrequently seen on the most fashionable promenades. High top boots, most elaborately made from calf or patent leather, are very common among the young men of the towns; while in the country villages and on the *estancias* heavy boots with tops reaching to the hips, but adjustable at the knees, are quite the thing. Farther out on the frontiers, where the art of the cobbler has not yet "found a local habitation," it is very customary to see the camp men and "gauchos" luxuriating in what are called *botes de potro*; that is to say, boots made of untanned horse hide. For this purpose the skin of the legs of the animal from the knee to the very hoof is carefully removed, stretched, dried, dressed, then turned with the hair inside and sewed up in the shape of a boot. It thus quite snugly fits the leg as well as the foot and possesses the double quality of being warm and quite water-proof. As the men who wear them spend the most of their time on horseback, these *improvised* boots are admirably adapted to the service for which they are intended.

#### ALPARGATAS OR CLOTH SHOES.

A more common article of foot-wear greatly in use among the peons, changadores, porters, and other laboring classes is the alpargata—a sandal made from hemp. The uppers are, of course, sail-cloth, and the soles are jute strands braided together, or pieces of small rope placed close together and stitched through and through with hempen thread in the shape of the foot. These shoes are not only very comfortable but very serviceable, and the climate is so equable here that they can be worn in all seasons. Formerly they were imported from Italy and Spain, but there are now in this city a large number of factories, where they are exclusively made, and the demand for them is constantly increasing. In 1884 there were sixty-one of these establishments within the limits of Buenos Ayres, some of them employing from fifteen to twenty-five workmen, and one or two even more. In the province of that name there are also twenty-eight establishments employing forty workmen and with \$15,000 capital invested. Of course there are many

more in the interior of the country, but I have no statistics in regard to them.\*

#### THE AVERAGE ARGENTINE FOOT.

In regard to the sizes, shapes, &c., of the boots and shoes usually worn in the Argentine Republic, on which subject information is asked,

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\*A very large establishment for the exclusive manufacture of alpargatas or cloth shoes has recently been started in Barracas, near this city. It is the plant of foreign capital, under the name of Etchegaray & Fraser. Notwithstanding the expense of bringing out and erecting the most approved machinery, and the heavy duties imposed on the imported materials, I understand the business is progressing rapidly. About one hundred girls, besides a large number of mechanics and other workmen, are employed in the various departments. The following article taken from the Arbroath Guide refers to this establishment, and at the same time gives a most interesting account of the origin of alpargatas and the present immense extent of the industry :

#### CANVAS SHOES.

A new industry originating in Arbroath, of some importance here, but still more important in distant countries, has been started within the last eight years or so. We refer to the manufacture by Messrs. Douglas, Fraser & Sons, of Wellgate Works, of shoes soled with plaited jute and with uppers of canvas. All shoes and boots, of whatever kind, may be regarded as a development of the ancient sandal, which is still extensively worn in the East, in countries bordering on the Mediterranean, and in warm lands generally. The canvas shoe, however, may properly be described as the nearest approach to the sandal, its development from which, indeed, has taken place within the last few years. In Spain, in the south of France, in other Mediterranean countries, in South America and in the Spanish colonies, sandals, as has been indicated, have been the ordinary wear. These sandals consisted of plaited hemp, strapped to the feet. They were made by hand, and this industry has formed the staple trade of the Basque Provinces. About eight years ago, Messrs. Douglas, Fraser & Sons directed their attention to the feasibility of improving upon these sandals and producing them at a cheap rate by machinery. With this object in view, members of the firm visited France and Spain in order to study the trade there and the simple process of hand labor by which the manufactured article was produced. The result is the production of the jute-and-canvas shoes which are now well known in all Spanish-speaking countries as "alpargatas." Before this result was attained a great deal of thought and labor had to be faced. Machines had to be designed and constructed, and after these machines had been invented and patented there was the important work of getting the new article into the market—a part of the business, as commercial men may easily suppose, which was not altogether simple. Looking to the short time which has elapsed since the undertaking was planned, it is almost surprising that already it is successful in a most marked degree. Messrs. Douglas, Fraser & Sons have set apart a section of their sail-cloth factory at Wellgate for the new manufacture. There they have two sample systems of shoe-making machinery at work, and the working of these machines, which were designed by the firm themselves, and of which about a dozen are employed in making a pair of canvas shoes, has been studied with a view to improvements being introduced.

In the first place, there are ordinary jute carding and drawing machines, then there are machines for plaiting and rolling up the fiber which is to constitute the sole, there are machines for cutting into lengths the canvas cloth forming the uppers, for shaping the upper cloth, for embroidering it—for the shoes are tastefully embroidered in a style and with colors attractive to the Southern taste—for folding the toes, for compressing the shoe into shape, and for sewing the sole from side to side. These are only some of the machines. There are about a dozen special machines, all of them different from each other, employed in this manufacture, and a few ordinary Singer machines are used in one of the finishing processes. The machines are deftly worked by tidy, quick-handed girls. The number of persons employed in the production of these shoes in Arbroath is not large—only about twenty-five, but the output here is 4,000 pairs weekly, and the retail price of the article is from ninepence to a shilling. A good many of the canvas shoes are now sold as summer shoes at the shoe and other shops in Arbroath.

But the chief manufacture and trade in alpargatas is abroad. On the jute fiber being introduced into commerce, jute soles or sandals were largely used in Spain in place of hemp. These soles, as has been said, were hand-made, and to give some idea of the enormous extent of the trade, it may be mentioned that no fewer than forty

I fear that in approaching it, I may, as Shakespeare says, be "pacing upon a giddy footing." So far as the average native gentleman of this country is concerned, it may be stated generally, that he has feet which are rather small, quite straight, somewhat inclined to be thick, and with a high instep. As for the average native lady, I may not venture to imply that I have any critical knowledge of her "understandings," nor

million pairs of soles are used in Spain alone every year, being at the rate of 500,000 pairs per week, besides what are used in Southern France, the Spanish colonies, South America, and elsewhere. It was thus a fine field of industry to open up to the operations of machinery, but the size of the trade was so enormous that no single firm could ever think of undertaking it altogether. Canvas being so largely used in the manufacture of these shoes in the Argentine Republic, when the shoe instead of the sandal was adopted, and as the canvas was supplied principally from Arbroath, this was the inducement for endeavoring to produce the shoes by machinery, as we have already described. When Messrs. Douglas, Fraser & Sons turned their attention to the trade eight years ago, they found that the jute used in the manufacture in Spain and the south of France was imported into these countries from the London market. The merchant bought the jute, handed it out to be plaited, then gave out the plait to be sewed into the shape of a sole, and next, after the sandal had developed into a shoe, gave out the canvas uppers along with the soles to have the completed shoe. All this hand-work was done, as most of it is still done, in southern France and in Spain. Messrs. Douglas, Fraser & Sons having invented and patented the machinery for the duction of the shoes, and accomplished the manufacture of the goods proceeded to take steps to get them introduced into the market. It was found, however, impossible to make shoes in Arbroath for exportation to South America, where they are so largely used, import duties to the amount of 50 per cent. being levied there on the manufactured article. The only way, therefore, to get over this difficulty was to get a factory erected in the country where the shoes were wanted. While the honor of having been the birthplace of this undertaking belongs to Arbroath, these duties levied by the Argentine Republic have prevented our town from reaping all the advantage in a substantial increase of local industry, which might otherwise have accrued to it. About two years ago a company was formed and a canvas shoe factory was erected at Buenos Ayres, and supplied with machinery identical with that of the sample systems at work in Wellgate. This factory produces 30,000 pairs weekly and thus is revolutionizing an important trade of a country twice as large as Britain. Another company have a factory at Bilbao, in Spain, capable of turning out 18,000 pairs weekly.

There can be no doubt that this enterprise, the production of canvas shoes by machinery, is still in its infancy, although its infancy has proved to be a vigorous growth. The shoes are superior to the hand-made article, and especially in the dry and warm countries in which they are most largely used they are sure, we should say, to meet with an appreciation that will ultimately far exceed the production under the hand-made system, large as it is. That, at any rate, is the usual course with regard to machine made products. We see it, for example, in the ordinary boot and shoe trade, which in Arbroath has been enormously developed since a few enterprising men took to manufacturing boots and shoes by machinery in place of the old hand-made plan. The canvas shoes, with their thickly-plaited jute soles, have decided advantages, particularly, as we have said, in warm climates, in which the weather can confidently be counted upon as settled for weeks and months together, so that when a man goes out in the morning he can do so without any debate with himself as to whether or not he ought to arm himself with an umbrella, or whether his soles may be thick enough to withstand the damp of sloppy streets. A great advantage of the jute-soled shoe is that it absorbs the moisture of the foot. That is an important consideration in warm climates, where the ground is so hot. Then, it is cheap, and of course this is an important consideration to the poor by whom, in the Spanish-speaking parts of the world especially, it is universally worn. In our climate, canvas shoes can never, we daresay, be a great staple; we suppose that with regard to shoes, for all-round wear, we shall continue to pin our faith to that important article of a popular creed, that "there is nothing like leather." Still, even here the canvas shoe has its use. It is a good deal used now, in place of "haggers," by workers at the mills and factories; it is in use also as a slipper, and in summer it makes an occasional appearance on the streets. It is, however, in the warm countries bordering the Mediterranean, in South America, in the colonies of Spain, and generally where the hempen or jute sandal has been or still is commonly used, that these canvas shoes will find their greatest markets, and the manufacture, already large, will doubtless be yet largely developed.

yet can I say in reference to her with the dear old poet Suckling, that—

Her feet, beneath her petticoat,  
Like little mice, steal in and out,  
As if they feared the light.

But if they may not be compared to “little mice,” it is, at least, certain that the dimensions of the articles in question are such as to command admiration, not merely among boot-makers, but generally. I believe it is conceded among connoisseurs that the feet of the women of South America are as nearly perfect as it is possible for fallen human nature to produce them; being small, straight, and narrow, with a good heel and an arching instep; and this opinion has come down to us from the most remote times. I have before me now a very old book, which is entitled “A Voyage to South America, in 1735, by command of the King of Spain, by Don Jorge Juan and Don Antonio de Ulloa, captains in the Spanish navy, &c.,” from which, as well for the information as the quaintness with which it is said, I take the following paragraph:

One particular on which the women here especially value themselves is the size of their feet, a small foot being esteemed one of the chief beauties, and this is the principal fault they find with the Spanish ladies, who have much larger feet than those of South America. From their infancy they are accustomed to wear straight shoes, that their feet may not grow beyond the size which they esteem beautiful; some of them do not exceed  $5\frac{1}{2}$  inches or 6 inches in length, and in women of a small stature they are still less. Their shoes have little or no sole, one piece of cordovan serving both for that and the upper leather, and of an equal breadth and roundness at the toe and heel, so as to form a sort of round figure of 8, but the foot not complying with the figure brings it to a greater regularity. These shoes are always fastened with diamond buckles or something very brilliant, in proportion to the ability of the wearer, being worn less for use than ornament; for the shoes are made in such a manner that they never loosen of themselves, nor do the buckles hinder their being taken off. It is unusual to set these buckles with pearls, a particular to be accounted for only for their being so lavish of them in the other ornaments of dress as to consider them of too little value. The boot-makers, who are no strangers to the foible of the sex, take great care to make them in a manner very little calculated for service. The usual price is three half crowns; those embroidered with gold or silver cost from 8 to 10 crowns; the latter, however, are but little worn, the incumbrance of embroidery being suited rather to enlarge than diminish the appearance of a small foot. They are fond of white silk stockings, made extremely thin, that the leg may appear the more shapely, the greatest part of which is exposed to view. These trifles often afford very sprightly sallies of wit in their animadversions on the dress of others.\*—Vol. II, p. 58.

It is a hundred and fifty years since this was printed; and, while it must be confessed that there has been a very marked change in the style of ladies' shoes since then, yet there has been no change whatever in the esteem which they entertain for a small foot. The size of the foot may have grown somewhat since 1735; but a little more length has perhaps even improved its beauty.

This is quite a cosmopolitan country, and of the other nationalities represented here the Germans and Swiss have rather short, thick feet; the French narrow, long feet; the Spanish somewhat broad, with high instep, and the English long, broad, flat feet, made to appear more so by the style of their walking shoe, which is so comfortable, but so unsight'y.

#### HOW TO INTRODUCE AMERICAN SHOES—THE DIFFICULTIES.

In regard to the best means for the introduction and enlargement of trade in American leather and American boots and shoes, I am some-

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\* The authors in a note added the following: “All those who can afford them, wear shoes made in the English manner, but with heels of wrought silver, the tinkling of which, added to the smallness of their feet, has really, at least to the weather-beaten sailor, something captivating.”—Vol. II, p. 59.



what at a loss what to advise. It will be observed from what I have already said that our trade in these lines of goods has to contend with three very serious difficulties :

1. The first of these is the home manufactures of the Argentine Republic, which are so bountifully supplied with the raw materials at cheap rates.

2. The second is the high protective duties which are levied by the Argentine Government on imported articles of foot-wear.

3. The third is the fact that what little foreign trade there is in certain lines of leathers and of boots and shoes is pretty much in the control of the French and Belgians, who keep the command of it by at the same time furnishing the styles and fashions of the boots and shoes worn in this country and by changing the same at pleasure.

This latter is probably the most serious difficulty which any attempt to extend our trade here would have to encounter. As I have before remarked, the Argentines are excessively fastidious in the matter of their boots and shoes, and an article which is not exceedingly Parisian in its shape and mode would probably fail to find a market here. Hence, what we should indiscriminately send out, while quite the style at home, might be just the reverse in the Argentine Republic. I should judge that the safest way for our manufacturers to undertake to make an inroad upon the established trade would be by introducing samples of boots and shoes made up according to the prevailing styles of the country and try them. Agents thoroughly acquainted with the business should accompany them. Careful attention to the particular fancies of the Argentines, and a certain attractiveness in the finish, may be able to some extent to remove the import trade of this country in boots and shoes out of the rut in which it has been kept for so many years by the caterers to French styles. Mr. J. H. Ransom, jr., representing a large number of factories of Boston, Lynn, Haverhill, &c., has been here prospecting ; and while he saw but little which was at once encouraging, he left here under the impression that something might ultimately be done in the way of opening a market here for American foot-wear.

#### RUBBER GOODS AND ARTIFICIAL LEATHER.

In rubber goods there is, I think, a present field for our American manufactures. There is a general concession that the rubber boots and shoes furnished by us are far superior to those which find a sale here from other countries, at the same time that they are much more tasty than either the French or the English goods of the same material.

There is yet but little demand here for our artificial leathers, but I also think they might be able to find a good market in this country if properly pushed.

#### PACKING AND PUTTING UP.

In regard to packing goods for this market, it is generally conceded that shippers from the United States are as a general thing more careless, more indifferent, or more inefficient than those of any other country which has trade with the River Plate. The miserable manner in which a large portion of the shipments from the United States is put up for this market is proverbial in the trade. Our manufacturers, to a great extent, seem to have an idea that the same style of boxing, put together with a half dozen nails, in which goods are accustomed to pass by rail

from one portion to another of the United States, is equally sufficient for the long journey over rough seas and through tropical heats which merchandise intended for the River Plate has to encounter. The result is that a large percentage of our shipments to this port comes in bad and unmerchantable condition; and much that does reach here in proper order, owing to the ease with which the packages can be opened, manipulated, and closed up again by unfaithful peons, lightermen, and sailors, &c., is very apt to go into custom-house with a large amount of shortage. Our shippers could learn a lesson in packing from the English and French, who not only properly prepare their goods for foreign shipment, but put them up so securely in their boxes that they are quite proof against sea water, tropical heats, ship rats, and wharf rats. It is very apparent that the boxes in which we are accustomed to pack boots and shoes for our internal trade will not answer for this far-off port.

#### PERSONS ENGAGED IN IMPORTING SHOES, ETC.

I am requested to forward the names of trustworthy persons engaged in the importation of boots and shoes and of leathers. I would state that there are few, if any, houses especially and exclusively engaged in these branches of business. The importers here are all more or less speculators—general traders—buying in foreign markets not one particular line of goods, but almost any and all lines that promise to pay a profit. Thus they sometimes combine the most opposite and incongruous merchandise. Very many of them import boots and shoes, or would do so if they could make it pay. About the only exclusive importer of boots and shoes is J. Bernasconi & Sons, No. 16 Calle Peru; who, however, is also a manufacturer in Europe, and he almost exclusively imports his own make. I would also refer you to C. S. Bowers & Co., No. 277 Calle Cangallo; F. C. Bally & Co., No. 142 Calle Maipu; E. Tornquist & Co., No. 35 Calle Maipu; Thomas G. Foley & Co., No. 28 Calle Tacuari; Mallman & Co., No. — Calle Rividavia; R. J. Carlyle & Co., No. 149 Calle Rividavia; Bates, Stokes & Co., No. 79 Calle Maipu; which list could be indefinitely extended.

#### WHY NOT BRING OUR MACHINERY HERE?

In closing this report, I may be permitted to say that while in my opinion, owing to the reasons I have given, the field here for the importation of American boots and shoes is just now not the most promising, it has occurred to me that if some of our manufacturers in these lines of goods would bring out to this country the wonderful machinery which is now in use in the United States, plant it in this city, and embark upon a large scale in the manufacture of boots and shoes, there would be a fine opening for such an enterprise. Thus saving the very high duties now imposed on the imported goods, and finding the ready material to work on immediately at hand in unlimited quantities, I believe with proper management it could at once enter upon a large and lucrative business by manufacturing such styles of goods as the trade demands, and putting them upon the market at the low rates which the proprietors could afford to ask.

E. L. BAKER,  
Consul.

UNITED STATES CONSULATE,  
*Buenos Ayres, August 2, 1885.*



**PERU.***REPORT OF CONSUL BRENT.***TARIFF.**

On leathers of all kinds, 45 per cent. ad valorem.

Boots and shoes, 50 per cent. ad valorem.

**AMERICAN GOODS.**

Leather manufactured in the United States is wholly unknown in Peru, save when introduced in the form of harness, saddlery, trunks, and belting for machinery. In such shape it is highly appreciated, but the experiment of importing it for the purpose of manufacturing footwear has yet to be made.

Several, perhaps ten, years since a large line of samples of American-made boots, shoes, and brogans, was brought to Peru, in order to test the market. But the heavy character of the goods introduced; the unfamiliar fashion and shape, and more than all, perhaps, the difference existing in the size of the average American and Peruvian foot, rendered the articles rather objects of curiosity than saleable or attractive merchandise.

In my investigation I found a box of these samples thrown amongst the antiquated and damaged stock of one of the principal shoemakers at Lima. I may mention here that as Callao is merely the port of arrival and discharge for the capital, 7 miles distant by rail, the information and scanty data contained in this report refer rather to Lima than to her sea-port town.

Inquiring as to the reasons for the non-importation of American leather, I have met with several more or less cogent replies. Custom and usage are to be considered. The better class of people here dress strictly after the fashions of France. The mild climate is favorable to the employment of light fabrics for shoes, and delicate kid, highly-dressed calf-skin and polished patent leather are chiefly used. These articles were first introduced from France, and with the conservatism peculiar to these people in almost all matters that do not bear on politics, the supply is still obtained from the same source. It is not for a moment to be doubted, in fact I have had an opportunity of making the trial, that leather made in the United States and used in ordinarily good shoe manufacture, possesses a durability of nearly three times that of the French article brought here and made up. But the French leather is less expensive than that of the United States, and, although a pair of shoes from a first-class New York maker will greatly outlast those manufactured here from French goods, the ultimate economical aspect of the question does not enter into common calculation.

**LEATHER.**

At Lima and Callao there are five tanneries of considerable extent and resources. I am informed that these give employment to about three hundred persons on an average, and that the wages for an ordinary workman are 1 silver sol per day, or 79.5 cents of our money. The largest of these establishments is the property of Italians and Frenchmen.

Hides and skins are obtained from the slaughter-houses at Lima and Callao, and to some extent from the immediate interior. A good large hide brings from 2 to 3 silver sols at the tannery.

A peculiar bark, called casca, found in abundance in the northern portion of Peru and in Ecuador, is used in tanning.

The quantity of leather manufactured, and where the output is consumed, are questions difficult to answer. From forty to seventy beeves are slaughtered daily in the two cities; but because of the number of days when abstinence from meat is commanded in this Catholic country, I cannot arrive at a precise average. From the immediate interior perhaps 2,500 hides are brought to Lima yearly. The leather is consumed at Lima, Callao, and their dependencies.

#### IMPORTS OF LEATHER.

In the absence of exact data, persons in the trade estimate the value of the yearly leather import at, more or less, 80,000 silver sols. As has been stated, the supply is mainly obtained from France. England furnishes a part; but the article is so manufactured as to resemble the Continental production. All kinds of leather are imported, from that used for heavy riding boots to delicate prunella, for the Cinderella like slippers of the Lima ladies.

There are no imports of leather from the United States to Peru.

#### OPENING A MARKET.

In order to establish a market and familiarize the people with the superior qualities of American leather, enterprising agents might be sent out well acquainted with the Spanish language and supplied with an inviting line of samples. I foresee, however, that it will require a thoroughly vigorous campaign to successfully introduce the article and compete with the French production.

As regards the names of trustworthy persons engaged in the importation of leather, the leading French and English business houses at Lima act as commission agents for the manufacturers on the same terms as those obtaining in the sale of general merchandise. The house of Messrs. Le Chevalier, Dagenne, frères et Cie, is one of the most prominent European commercial establishments at Lima.

#### BOOTS AND SHOES.

Although a few Americans residing here bring out what is necessary for their own wear, the Peruvian foot has no acquaintance with American manufactures of that class.

There are two establishments at Lima where shoemaking is carried on by machinery. From these the army is supplied, and also the lower classes of the people, who cannot incur the expense of custom-made goods, or who are careless of the demands of fashion. The leather tanned in Peru is of an inferior character. It quickly rots, and being hastily cured is sold at such a comparatively low price as to place it within the reach of all. Some of the better shoemakers use it occasionally for soles, but universally condemn it for uppers. Low shoes are generally worn. Except on the plantations and in the mining districts high or Wellington boots are rarely seen. The most popular form is that of the "Congress gaiter" with elastic sides. Ladies wear buttoned boots of thin kid or calf skin, with soles of a proper thickness, and heels that add an inch or more to the stature of the wearer. Fashion-

able young men are partial to low-quartered pumps of calf or patent leather, and a six weeks' or two months' wear completely invalidates these articles. Yet they are comparatively cheap, and connoisseurs declare that as perfectly finished a shoe is turned out by the best Lima makers, as may be procurable in Paris itself. I was shown, yesterday, a pair of dress boots, buttoned, of kid and patent leather, made to order, and costing only eight silver sols. The same style of boot in New York would be priced at least at \$12. The sizes are according to French measure, and the No. 42 is rarely needed. All the boots and shoes imported are of French manufacture and are mainly for female wear. Within the last few years, however, the ladies of Lima have commenced encouraging the local shoemakers, who are mostly Europeans, and, as mentioned, employ European leather. ●

Duties on boots and shoes are 50 per cent. *ad valorem*; on leather of all kinds, 45 per cent.

In conclusion, I have to say, frankly, that I do not consider Peru as a favorable market for the sale of the American goods referred to, but that little could be lost in making the experiment of introduction.

H. M. BRENT,  
*Consul.*

UNITED STATES CONSULATE,  
*Callao, June 1, 1885.*

## CHILI.

### REPORT OF CONSUL MERRIAM.

#### TARIFF.

Boots and shoes, 35 per cent. *ad valorem*.  
Calf-skins, 25 per cent.

#### HIDES.

To say that in this consular district a leather industry does not exist is almost literally true, for although, according to the census of 1883, the population amounts to 16,000 souls, yet there is not in the district a single tannery nor a factory for the manufacture of boots and shoes.

In the year 1884 there were imported into Iquique alone, to say nothing of Pisagua, a few miles north, 6,900 head of cattle from the Argentine Republic, via Valparaiso, all of which were slaughtered for the market.

By far the largest part of the hides of these bullocks were shipped to Valdivia, in the south of Chili, and the rest were shipped to Germany. A part of the hides shipped to Valdivia are reshipped to Europe. The principal part, however, are tanned there, and made up into sole leather.

The cost of the hides placed in the tanneries at Valdivia may be estimated at \$8, United States gold.

The sole leather made in Valdivia is of a superior quality, and has an excellent reputation, not only in this country, where it is mostly consumed, but also in Europe. This is attributed to the superior qualities of the bark used in tanning, which is called "lingue."

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\*The duty on boots and shoes is high, 35 per cent. *ad valorem*, the same rate as fixed in our own tariff, and the purpose of protection is pretty effectually accomplished. The duty is not discriminating, but is assessed alike on the manufactures of all countries. The duty on calf-skins is estimated at \$2 the kilo.

## IMPORTED LEATHERS.

Only an inferior kind of upper leather for laborers' and soldiers' use is turned out at the tanneries of Valdivia. Fine calf-skins are all imported from Europe, and, so far as this district is concerned, none from the United States.

There is, therefore, a large field for competition in this branch of the industry for our leather manufacturers. In Iquique, at least, American leather is entirely unknown, and the only way to discover if our leather would suit the market is to send it out for trial. Leather from abroad must be obtained, and it is simply a question of quality and price whether we can compete successfully with France and Germany in calf-skins. If our leather is inferior in quality, or if of the same quality it is dearer in price, nothing can be done, for so powerful is the influence of habit that in order to supplant those who have long enjoyed a monopoly in any branch of trade, it is necessary to offer to the purchasers some positive advantage in order to secure the transfer of their patronage to us, and that advantage will depend upon the quality and price of the article sold.

## BOOTS AND SHOES.

It is a mistake to suppose that anything will do for this market, that is to say, for South American markets, and that inferior and elsewhere unsalable goods can be put upon the market here with success. There may be, it is true, a sale for inferior goods, but let them be honestly offered as inferior and at a correspondingly fair price, and then no one is deceived. Any other policy is suicidal. Let the best goods be offered on the most favorable terms possible, and it will soon be seen whether competition is possible.

Where time is not a matter of importance, all merchandise, especially of a bulky nature, should be sent by sailing vessels around the Horn, on account of the high rates of freights by steamer by way of the Isthmus.

In Iquique, as already stated, there are no factories for the manufacture of boots and shoes. Such factories exist in Valparaiso, in Valdivia, Ancud, Chiloe, and in Tome.

Nearly all of the boots and shoes worn in this country are either made by hand or are the product of the factories referred to.

There is no lack of skilled workmen, and the work turned out is creditable, as to style, finish, and quality.

## STYLES.

Boots for men are not used here, gaiters being universally preferred. In this line there are no importations from the United States, and from Europe to a very limited extent, and the same is true of boots and shoes for ladies' and children's wear.

The consumption of fine boots of French manufacture for ladies is very small, as the price to the consumer, on account of the high rate of duty, is so great that they cannot compete with a similar article of domestic manufacture, which is equally durable, and nearly equal in point of finish.

Such being the case, there is no prospect of building up a trade with this country in boots and shoes. If any, however, wish to make a trial, they should keep in mind that all boots and shoes for the native market should have very high insteps and narrow toes, with a plentiful as

sortment of small sizes, as the foot of the average Peruvian lady calls for No. 30 to 34, French measurement, which is more or less the size of our young misses of ten or eleven years of age. Since the annexation of this province to Chili, however, and also on account of a considerable increase in the foreign European element, there is now a somewhat greater demand for boots of a larger size.

AMERICAN LEATHER.

As American leather is not known in this market, no one will venture to order it on an uncertainty. If any merchants will send out to me trial lots on consignment, I will do my best to have a speedy and fair trial made, and we can soon know whether American leather meets the requirements of this market.

I give below a tabular statement of the imports of calf-skins into all the ports of Chili, and also of boots and shoes, during the year 1883, so that a fair idea can be formed of this industry in a country reputed to contain two and a half millions of inhabitants.

From—	Calf-skins.	Men's boots.	Ladies' boots.	Children's.
	<i>Kilograms.</i>	<i>Dozen.</i>	<i>Dozen.</i>	<i>Dozen.</i>
France .....	44,720	348	3,506	4,120
Germany .....	12,872	158	1,098	2,906
Great Britain.....	4,840	400	707	1,603
Total .....	62,432	906	5,311	8,629

J. W. MERRIAM,  
Consul.

UNITED STATES CONSULATE,  
Iquique, August 29, 1885.

EUROPE.

AUSTRIA-HUNGARY.

Consul-General Edmund Jussen, Vienna, July 18, 1885.  
Consul Frederick W. Hossfeld, Trieste, July 18, 1885.  
Consul Henry Sterne, Buda-Pesth, May 29, 1885.  
Vice-Consul Leo Sekeles, Prague, June 12, 1885.

TARIFF.

[100 kilograms = 220.465 pounds avoirdupois. 1 florin = \$0.476.]

Florins.

Leather, ordinary, blackened, neat and horse leather, also grained, in entire or in half skins .....	per 100 kilograms..	9
Sheep and goat skins, tanned (neither white nor chamois, dressed), also split not colored .....	per 100 kilograms..	6
Sole leather and sole leather refuse .....	do.....	15
Leather, fine, i. e., blackened leather, except the neat and horse hides enumerated above; glove leather, cordovan, morocco, Turkish leather, as well as all colored, japanned, and bronzed leather, parchment.....	per 100 kilograms..	18

Florina.

Leather goods, ordinary, i. e., articles of ordinary leather (neither white nor chamois, dressed), also of blackened or grained neat and horse leather or coarse wax cloth; harness or trunk makers' manufactures made from haired skins, of raw jute textures, gray packing canvas, raw ticking, drillings, canvas, and other coarse raw linen textures, also girths.....	per 100 kilograms..	25
Leather goods, fine, i. e., articles of white chamois dressed leather, parchment, or of fine leather as above defined, of wax cloth or wax silk not otherwise provided for; harness and trunk makers' articles, also of carpet tissues.....	per 100 kilograms..	35
Shoes of all kinds, of or with leather; also in connection with woven or worsted goods and other materials, if not coming under fancy goods..	per 100 kilograms..	35
Gloves of leather (even if only cut out or in connection with woven or worsted goods).....	per 100 kilograms..	50

## CONDITION AND EXTENT OF THE LEATHER INDUSTRY.

*Vienna.*—The leather industry of Austria-Hungary is very extensive about forty large factories manufacture sole leather exclusively, and about the same number make leather for uppers only. The proprietors of these establishments are mostly men of large means. The industry employs about 40,000 laborers, and the weekly wages paid range from \$3.60 to about \$6. The small factories are being absorbed by the large, the latter possessing the advantages of machinery and an abundance of working capital.

*Trieste.*—Less than five years ago the leather industry of Austria-Hungary was still undeveloped, the domestic tanneries being unable to meet the local demands. From 8,000 to 10,000 tons of leather were annually imported, and, under a comparatively moderate duty, the imports were increasing rather than decreasing. In the protective tariff of Austria, which has been developed within the last five years, domestic leather is favored alike with other home manufactures, the duty on all kinds of imported leather being about 4 cents a pound, while hides and skins are on the free list. This duty has caused imports to cease and stimulated domestic manufacture. There are now over eight thousand tanneries of varying capacity in Austria, and twelve hundred of these are situated in this consular district. While many of these establishments are of a very primitive character, working on local supplies for local consumption, extensive factories, importing large quantities of raw material, are rapidly taking their places.

Trieste must be considered by itself, as it is a free port, and commercially is foreign territory as regards the rest of Austria. The free entry of raw hides into the interior and the free importation of foreign leather into the city, make the erection of tanneries unprofitable; the few establishments still found in the suburbs are insignificant when their product is compared with the amount of leather imported.

*Buda-Pesth.*—The industry is large, not only being sufficient for domestic demands, but also supplying a surplus for export.\* Besides a number of tanneries of small consequence, there are about twenty large establishments in the state, having annually a total capacity of about two hundred thousand sides of sole leather. Seven of these establishments, with an annual capacity of about ninety thousand sides, are situated in Buda-Pesth. These tanneries work altogether on sole leather, uppers (coarse), and sheep-skins. Taking the industry as a whole, manufactured articles of leather as well as leather, Hungary imports from Austria more than six times as great a value as it exports.

*Prague.*—The extent of the leather industry is more considerable in

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\* This seems to apply to Austria-Hungary.



Bohemia than in any other district of Austria-Hungary, owing to the cheapness and abundance of the materials.

#### WHENCE THE HIDES ARE OBTAINED AND THEIR COST AT THE TANNERIES.

The hides and skins are mostly furnished by the slaughter-houses of the Empire. Heavy hides are imported from Italy, Germany, and South America; lighter material is supplied from India, China, and Africa. The raw hides for the best heavy sole leather are nearly all imported, though the state possesses for this the best material in its heavy splendid cattle; but the best animals are nearly all exported. East Indian salted hides are imported by way of Trieste, also hides from Rio de Janeiro via Hamburg. Green calf-skins are brought from Russia, and sheep and goat skins from the Levant.

Consul Sterne sends the following information on prices in Budapesth, the quotations being for 100 pounds and for a medium quality of the commodities:

<b>Bark:</b>	
Oak .....	\$1 00
Pine .....	75
<b>Gall nuts:</b>	
Best .....	2 80
Medium .....	2 00
Poor .....	1 27
<b>Valonia</b> .....	4 18
<b>Hides:</b>	
Green,* with horns .....	8 00
Green, without horns .....	9 00
Dry, with horns .....	20 00
Dry, calf (best), each.....	\$2 00 to 3 00
<b>Sole leather:</b>	
"Terzen" .....	30 00 to 32 75
Hemlock .....	24 50 to 30 00

The price of green hides in Vienna is at present (including horns) 7 to 8½ cents an English pound. The London auction prices generally control rates in this market. In Trieste the average price of green hides is from 100 to 110 francs a quintal (220.485 pounds avoirdupois).

#### MATERIALS USED IN TANNING AND THE SOURCE OF SUPPLY.

Besides the crushed bark of the oak, pine, and other native trees, Austrian tanners use very extensively two other materials: *valonia*, the acorn cup of a species of oak (*Quercus ægilops*) obtained in large quantities from Turkey and Greece; and *knoppern*, a morbid outgrowth on the flower cup of the oak, occasioned by the sting of certain insects, and is found in Hungary and Croatia. Myrabolanes and divi divi from India†, and sumach from Sicily are also used, but tanners' extracts are only rarely employed.

Consul Sterne speaks of an extract made in Bohemia from the wood and bark of a pine tree by a patent process known to the trade as "Miller's," a small quantity of which has been shipped to the United States.

\*The green hides are always sold for cash, and the tanners usually make a contract with the butchers or dealers by which the prices are fixed for a period of four months.

† Consul Sterne writes that the experiments in these materials have not been "very successful."

**QUANTITY OF LEATHER MANUFACTURED AND WHERE THE OUTPUT  
IS CONSUMED.**

The annual production represents a value of about 130,000,000 florins, an estimate based upon the figures most available, for no official statistics of the industry are to be found. All reports agree that the leather is consumed within the Empire with the exception of some small lots exported to Germany, England, and the East. Lamb-skins for gloves are exported to Gloversville, N. Y., and other places in the United States.

**LEATHER IMPORTS—KINDS AND AMOUNTS.**

The following table will show the imports of leather into Austria-Hungary from 1877 to 1883. As the duties are specific, the custom-house statistics pay no attention to quality or kind. The figures for 1884 are estimated, the official report not yet having been printed, and it is thought the figures for 1885 will not reach 10,000 quintals:

Year.	Quantity.	Value.
	Quintals.	Florins.
1877.....	72,600	.....
1878.....	97,000	.....
1879.....	87,000	.....
1880.....	73,600	.....
1881.....	80,443	19,270,920
1882.....	83,802	20,423,535
1883.....	59,554	15,689,000
1884.....	(1) 20,000	.....

**IMPORTS FROM THE UNITED STATES.**

The duty on sole leather was doubled on June 30, 1882, causing a falling off in the importation of American leather, and indeed that of hemlock leather has ceased almost intirely. "Ridgeway's hemlock" was so popular that it is now imitated by a tannery in Trieste. "Union bellies" are still imported from America. Consul Hossfeld states that Trieste annually imports from ten to twelve thousand heavy hides, from five to six thousand of medium quality, and about the same number of light hides.

Consul-General Jussen says on this point:

The best qualities of oak-tanned sole leather manufactured in the United States have probably never been imported, because the prices are higher than those of the best sole leather manufactured in Austria-Hungary, and because the best qualities are not demanded here. The medium quality of hemlock leather only is imported. Damaged or small and heavy hides are not in demand, because the duty is paid on the weight and not ad valorem. Hemlock leather could now only be imported in larger quantities if it could be sold from 10 to 15 florins the 100 kilograms (about 220 pounds) cheaper than the medium quality of Austrian sole leather.

Of American origin there is used some split leather and cuttings (called, in general, *abfülle*), also some leather belting. As to belting, Consul Sterne says that though the American is admittedly superior to any other, there is no prospect for an increased demand, and dealers complain that they even find it difficult to dispose of what stocks they had purchased as an experiment, and simply because at first sight this belting is 20 per cent. dearer than the domestic article, though its uniformity of strength and finish makes it the cheaper in the end. Consul-General Jussen writes that all parties answering, regret that American

belt leather cannot be imported advantageously on account of the high duty.

He adds that "union bellies" from the United States are considered most excellent, in fact unsurpassed by any leather of home manufacture. Hemlock sole leather is considered a very excellent sole leather, and no Austrian article could compete with it were it not for the high rates of duty, and Consul Hossfeld says American leather compares very favorably with similar products of other countries. In fact it is claimed by well-informed importers that the growing popularity of American leather and the alarming increase in its importation were the prime causes of the increase in the duty on leather. American leather is appreciated in the Trieste market for its heaviness and great durability.

The price of American sole leather is lower than that of Bohemia, so that in spite of the high duty on this article the demand for it is continually increasing. (Consul Sekeles.)

#### FAULTS FOUND IN AMERICAN LEATHER.

The only fault found with American sole leather (the kind best known here) is its lack of finish, which compels the Austrian consumer to pay a high rate of duty on waste material. Large heads and rough bellies kill American leather in this country with some dealers. This is no doubt true. The large roughly-worked head and the loose fibers of the belly add only to the weight of the hide without adding to its value. Cleanly shaven headless hides would be equally valuable to the consumer, while paying from 10 to 25 per cent. less duty. (Consul Hossfeld.)

The tanning of the American leather is perfectly satisfactory and not surpassed by any other. But importers here find fault with the "wild hides," on account of the brands burned into them, and the cuts or incisions which the flesh parts frequently show. They say that the hides ought to be treated with greater care. It is desirable that the brand should be replaced by some other mode of marking the animals, or at least should be put on such parts where the hides would suffer less. Hemlock-tanned hides that were shown to me had in the middle a brand of more than 6 square inches in size. The importers here suggest that the brands should be made on the heads or feet of the animals, or, if this proves impracticable, that the brands should be made much smaller. The cattle introduced from Poland are also branded, but the signs are very small. In the leather of American hides a considerable portion is of inferior value in consequence of the large brand, and it is believed that the American leather trade would save millions of dollars if an expedient could be found rendering the present injurious mode of branding unnecessary. (Consul Sekeles.)

American belt leather is sometimes too red in color, owing to an excessive use of hemlock extract in tanning; it is also sometimes injured by a forced process of tanning. One dealer reports that union bellies and hemlock sole leather from America have "absolutely no faults"; all agree that the principal fault to be brought against American leather is the high duties levied by the Austrian tariff. (Consul-General Juszen.)

#### THE BEST MEANS FOR THE INTRODUCTION AND ENLARGEMENT OF TRADE IN AMERICAN LEATHERS.

The majority of opinions is decidedly discouraging, the high tariff being regarded as an insurmountable obstacle. A few well-informed business men believe that the importations of American leather could

be enhanced by *direct* business transactions between American tanneries and Austrian wholesale dealers and manufacturers. They are of the opinion that by dispensing with the services of English and German brokers and forwarders, not only the commission would be saved, but also other expenses, especially the charges for storage, which are very considerable in England. They furthermore believe that the American exporters must amend their terms of sale before they can hope for an increase of trade. The Austrian dealer will not consent to deposit the cash with his order; he desires to see the goods first, and is ready to pay on delivery.

The opinion is also advanced that the whole import trade in American leather should be handled by a single agent here—not a mercantile house already established—whose sole business should be the introduction of the article in question. This would, in a measure, obviate the sharp competition and commercial envy otherwise to be encountered. Sample shipments should be made, and a sample room opened, if possible, in connection with and under the control of the consular office. (Consul-General Jussen.)

American leather is so well known and its merits are so highly appreciated in Austria that, were it not for the prohibitive duty on foreign leather, the demand for it would be exceedingly large. Under the present circumstances it cannot compete with the productions of the domestic tanneries unless American manufacturers find it possible to correct the faults of which complaint is made, and to reduce their prices from 5 to 10 per cent., which would enable the importer to compete with the home trade, provided such a reduction be not met by a similar reduction in the price of domestic leather or by an increase of duty. (Consul Hossfeld.)

It is thought that the imports of American leather could be largely increased if American exporters would allow the following conditions:

(1) Not to demand from the Bohemian importers to accept the drafts for the amount of invoiced goods before the delivery of the goods.

(2) To prepay the freight as far as Hamburg, for cheaper conditions of transport can be enforced by exporters in New York than can be obtained by Bohemian importers from foreign brokers.

(3) To grant a longer time for paying the drafts, which are now ordinarily drawn at sixty days' sight. As the goods are thirty days arriving, this is, in fact, a credit of only one month. In Austria a credit of four months is the general usage, and on cash payments within thirty days a discount of 2 per cent. is allowed. (Consul Sekeles.)

For a direct visible increase of such trade (import of American leather) I do not look, because the dealers here are either branch houses from Vienna, and draw their supplies from that place, or, if independent houses, they seem to prefer to buy at second hand from other continental markets because of more favorable terms of credit and greater convenience.

The following names have been furnished by the consuls-general and consuls, as of merchants and firms engaged in, or likely to engage in, the import of American leather:

*Vienna*.—Gebrüder Riesz, Schöllerhof; Emil Alfred Ponak, II Ferdinand street, 15; Gebrüder Mauthner & Co., Ferdinand street.

*Prague*.—Brüder Forcheimer; Jacob Goldschmidt; Alexander Goldschmidt; Brüder Utitz.

*Trieste*.—G. B. Burgstatter; S. A. Seppilli; Morpurgo & Parente; Carlo de Ferrai; Fuizi & Ascoli; Pardo & Co.

*Buda-Pesth*.—Gebrüder Riesz, Waag-Gasse; Gebrüder Mauthner &

Co., Andrassy strasse; J. & S. Wertheimer, Andrassy strasse; Heinrich Tansk, Hoch strasse, 22.

*Teplitz.*—N. Bechert.

*Mistek, Moravia.*—Ignatz Lichtenstein & Söhne (leather and machine-belt manufacturers).

#### BOOTS AND SHOES.

The largest factories are the stock association of Horwitz and Polak, and Floh & Co., in Vienna, also A. Falk & Co., H. Lobenstein, B. Strakout and Hirsch & Co. of the same place. There are several hundred smaller factories in Bohemia, Hungary, and other districts employing regularly from 50 to 250 hands. The factories are worked almost exclusively to supply the export trade. (Consul-General Jussen.)

In this consular district there is only one boot and shoe factory deserving the name, that of A. Kleinschuster's Nachfolger at Marburg, which employs from 25 to 50 workmen. (Consul Hossfeld.)

A few houses in this city pretend to manufacture on the "factory system," but all combined do not employ as many hands as would a medium sized factory in the United States. (Consul Sterne.) There are only a few factories in Bohemia where entire boots and shoes are manufactured, but there are some producing the different parts, sometimes by machinery, and furnishing them to shoemakers. (Vice-Consul Sekeles.)

#### IS MACHINERY USED IN THIS MANUFACTURE, AND TO WHAT EXTENT ?

With the exception of the sewing machine for sewing and embroidering (light work) no machinery is in use.

In every town and village of the district the shoemakers' trade is so completely overstocked that it may safely be said that no other employment yields as small returns. Every cripple swells the membership of this ill paid craft. In the city of Trieste every porter plies the awl in his leisure hours, and as a result of this competition the shoemaker has to be content with \$1.50 or \$2 a week. Adding a reasonably good fit to his low prices, he defies the competition of machinery. (Consul Hossfeld.)

#### STYLES, ETC.

The Viennese prides himself upon the superior reputation of Austrian boots and shoes in the markets of Europe, and Vienna boots and shoes are for sale as such in all the principal cities of Europe. It is a peculiarity of the trade here that the greater number of boots and shoes are custom made, i. e., made to order. One reason of this is because there is no prevailing fashion or style for the whole nation. Each nationality composing the state has its own peculiar style, and each district has its own forms. These styles are made to order in every city, town, and village of the Empire to suit the tastes of the respective inhabitants. It would require a study of months and the pencil of an artist to give a true representation of all the different styles of custom-made boots and shoes. (Consul-General Jussen.)

In Southern Austria many a district still has its distinct costumes, of which, as a rule, the foot-gear forms an essential part. The peasantry of villages, though, which are situated in the vicinity of larger towns, have emancipated themselves from all predilection for traditional attire, and display no great fastidiousness in the selection of their foot-



gear. A reasonable fit, great durability, and unprecedented cheapness are the principal requisites. Shoes for both sexes with elastic sides are most in favor. (Consul Hossfeld.)

The mass of the people here have their shoes made to order—the wealthier classes almost altogether—and it must be admitted that as regards taste and quality, the goods made here are superior to all others in Europe, France probably excepted. Most of the people wear shoes and only the peasants and laborers, women as well as men, wear boots. The high boot also belongs to the outfit of the national costume of the patriotic Hungarian, and these boots may become a work of art. I believe that the general ambition here of possessing elegant foot-gear has much to do with the perfection of the trade. Styles of foot-wear can be found here ranging from the most elegant high-top boots of the gentry and the fancy colored boots of the peasants, down to the “raw-hide” sandals of the Roumanian or Stovaak. (Consul Sterne.)

#### WHERE THE OUTPUT IS CONSUMED.

The best kinds of Vienna shoes and boots are exported to Germany and Russia; the lower grades to Roumania, the Levant and the East. (Consul-General Jussen.) The export of Bohemian boots and shoes is only to eastern countries, such as Roumania and Bulgaria. In the latter country the army was furnished with boots manufactured in Bohemia. (Vice-Consul Sekeles.)

Most of the retail shops keep some workmen who, in addition to custom work, make some ready made articles in their spare time, and what more is wanted is brought from Vienna or from Brünn in Moravia, another manufacturing center. The shops for coarse goods work on the same system, only differing in this, that many send their surplus stock to the periodical markets or fairs. This custom is said to prevail to an even greater extent in the provinces. (Consul Sterne.)

Two features of the official export statistics combine to throw obstacles in the way of tracing the destination of such goods of this industry as are exported, viz, (1) all leather wares being subject to the same duty are comprised in one heading; (2) every exportation is, as regards its destination, credited to the country over whose borders it first passes upon leaving Austria-Hungary. (Consul Hossfeld.)

#### IMPORT OF BOOTS AND SHOES.

With the exception of very superior and expensive grades, occasionally brought from London and Paris, and chiefly by private persons, no boots or shoes whatever are imported into Austria-Hungary. All kinds are manufactured in the country.

#### AMERICAN SHOES.

As no boots or shoes are imported from the United States no comparison can be drawn between them and the Austrian articles.

I am quite sure American prices would not suit this market. As an illustration I would state that a very good, serviceable gaiter can be bought here, or rather made to order, for about 7 florins (about \$2.75). (Consul-General Jussen.) Custom-made shoes can be bought here for about as many florins, (1 florin = 46 cents) as for dollars in the United States. In ready-made goods the difference is not so great by reason of the use of machinery in the United States. The very best men's high calf shoes, made to measure and sewed, may be had here for \$3 or \$3.50.



The best ready-made pegged shoe of like description, sells at wholesale for \$24 a dozen, or sewed at \$28; ladies' shoes ready made cost, when pegged, \$18 a dozen, and sewed \$22. Shoemakers tell me that the outside wages paid for the making of a pair of custom shoes is 90 cents to \$1, and as the apprentice system is still practiced here, much work is done at comparatively small cost, almost for nothing; for these apprentices work from three to four years simply for their board and lodging. This applies to cities; in the provinces labor is even less costly. (Consul Sterne.)

The only dealer who replied to this part of Consul-General Jussen's circular wrote that to his knowledge no American shoes had ever been imported, nobody desires their importation, and that an importation would be entirely superfluous.

#### INTRODUCING AMERICAN SHOES INTO AUSTRIA.

Austria-Hungary seems out of the question as a point for American export; some dealers here, however, think that the exportation of American boots and shoes might be possible to the Levant and Russia, if it were possible to compete with the Austrian article in price and quality. (Consul-General Jussen.)

On the whole the prospect of introducing American boots and shoes into Austria is not favorable. Cheap home labor and a high tariff duty exclude foreign competition. If this statement admits an exception, it is in favor of very light, elegantly finished ladies' shoes, as the exclusively specific duty on shoes would add but little to the original cost of such goods, while their neat elegance would in vain look for its equal among Austrian products. (Consul Hossfeld.)

For many reasons I see no possibility of the United States exporting shoes to Hungary, at least for some time. (Consul Sterne.)

#### NAMES OF PERSONS IN BOOT TRADE.

No firm or person in Austria is engaged in importing boots and shoes from America, and no one has offered to make the trial. If American trade in this line is at all possible, samples would have to be sent here and the comparison made, as to price and quality, with the home article. (Consul-General Jussen.)

Trieste has no firm engaged in the import of boots and shoes; not even a wholesale boot and shoe store can be found in the city. I give the names and addresses of a few retailers, who, under favorable circumstances, might be induced to engage in the importation of American goods. (Consul Hossfeld.)

G. B. Centassi, Corso, No. 1; Ant. Ferro, Corso, No. 25; L. Neumann, Corso, No. 18; F. Lug, Via Cavana, No. 21; C. Stairopulo, Via San Nicolo, No. 16.

#### PACKING, ETC.

Leather should be packed in the same manner as is usual in England. Boots and shoes should be wrapped in oil paper, one pair in a box. Cases should be lined with tar paper, and protected against the sea air. (Consul-General Jussen.)

Since custom-house examinations are not made here, the consignor is allowed free action as regards packing. A liberal use of tissue paper, and individual pasteboard boxes will greatly aid to recommend such goods to the class of customers most likely to purchase them. (Consul Hossfeld.)

BELGIUM.

Consul John H. Steuart, Antwerp.  
Consul Max Polachek, Ghent.  
Consul G. D. Robertson, Verviers and Liege.

TARIFF.

Hides, undressed, and parchment.....	Free.
Kid and sheep skins, rough tanned, and kid, rough dressed,* per 100 kilograms.....	10 francs.
Skins, varnished and laquered, morocco, furs, &c., per 100 kilograms.....	30 francs.
Hides, tanned and curried, per 100 kilograms.....	15 francs.
Boots, shoes, &c .....	10 per cent. ad valorem.

ANTWERP.

REPORT OF CONSUL STEUART.

HIDES.

The traffic in rough hides is one of the most important upon the Antwerp market, and the tanning of hides is one of the great industries of Belgium.

The imports of hides are very heavy, owing in a measure to the great advantages that Antwerp offers as the best distributing point for Europe and from her frequent and extensive connections with the countries of South America, especially with the Argentine Republic, Uruguay, and Brazil, whence this article principally comes ; large quantities are also received from Holland, Germany, and other countries.

The hides thus imported are assorted, and those not retained for home consumption are resold and exported to other countries.

The United States send but very few hides to Belgium, but at times the exports from here in that direction are quite heavy.

The following figures, taken from a trophy erected by the Société Commerciale of Antwerp, in the International Exposition now being held here, will show the growth and extent of this article of trade during the past half century :

	Pieces.
1830 the import of hides was.....	499,623
1850 the import of hides was.....	624,921
1860 the import of hides was.....	883,523
1870 the import of hides was.....	1,138,222
1880 the import of hides was.....	1,141,475
1884 the import of hides was.....	1,006,782

They came principally from the South American countries, as the following analysis for 1884 will show :

La Plata :	
Dry.....	119,280
Salted .....	807,485
Rio Grande :	
Dry.....	7,769
Salted.....	42,025
Brazil.....	8,969
United States and other countries.....	15,417
Horse-hides .....	5,837
Total .....	1,006,782

\* Provisionally, importers can, in virtue of conventions (international) yet in force, demand a reduction of 50 per cent. on the duties on rough dressed kid. Duties are not discriminatory.

The largest exportations of hides are made to Germany, England, Holland, and France. The exports from Belgium to the United States for the first five months of 1885 were 107 tons.

TANNING INDUSTRY.

There are many tanneries scattered throughout Belgium, giving employment to many thousand workmen; indeed it may be safely said that there is scarcely a town in the Kingdom that has not one or more houses engaged in this industry. Many are small, but some are very important and worked on a large scale. Antwerp is to some extent an exception, as there are but one or two tanneries located in this district, and those are not important.

The chief tanneries of Belgium are located at Stavelot, Soignies, Gand, Namur, Quatrecht, Vilvoorden, Louvain, St. Hubert, Huy, Liege, Verviers, Mons, and Brussels.

In the southeastern districts of Belgium many small proprietors erect tanneries on their own properties, where they can use their own timber, and in this district the country is hilly and the water is remarkably well adapted for tanning purposes.

The materials used for tanning are oak bark, the African barks, the mimosa, valonia or scarlet oak, quebracho, and hemlock. For the most part the oak bark of the country is used, and this is abundant in the forest of the Ardennes. Some use a mixture of African barks and quebracho, and this is very much in vogue. Others tan with a mixture of the above ingredients with valonia and with the extracts of wood, mimosa, and hemlock.

From a trade circular issued in May last I give the following quotations for the articles used for tanning:

	France.
Bark straddles:	
Good .....	per ton.. 100
Fine .....	do.... 140
Valonia of Smyrna .....	do.... 350
Quebracho in block .....	do.... 100
Quebracho, ground fine, pure .....	do.... 150
Extract of oak wood (Oak brand) .....	per cask.. 530
Extract of oak wood (Buffalo brand) .....	do.... 480
Extract of hemlock (Horn brand) .....	do.... 530
Extract of valonia, double concentrated .....	do.... 750
Extract of quebracho .....	do.... 530
Extract of chestnut:	
20 per cent. for tanning .....	280
25 per cent. for tanning .....	320
30 per cent. for tanning .....	370

It is estimated that in Belgium, annually, the following number of skins are tanned and made into leather, viz:

Large animals (oxen, &c.) .....	400,000
Calves .....	200,000
Horses .....	20,000
Kids .....	500,000
Goats .....	100,000
Sheep .....	600,000
Total .....	1,820,000

of which about two-thirds are used in the country and the rest exported to France, Holland, and Germany. Some small quantities are sent to Brazil. The leather made in Belgium is said to be much appreciated, and the prices compare very favorably with other countries. An Australian paper a few months back spoke of the success of Belgian goods

in the colonial leather market, and complained of the money sent annually out of the colony for the purchase of hides tanned in Belgium.

All descriptions of leather are manufactured and used in every possible way, as for boots and shoes, saddles and harness, bands for machinery, book-binding, and a great variety of fancy articles.

#### AMERICAN LEATHER.

Little opportunity has been given to test whether importations of American leather would be profitable or not, there is a great preference for native and for French leathers, but if American leather could be put upon this market to compete both in quality and price with the native and French article, it would find purchasers, and a regular trade might be established, otherwise I am sure it would prove an unprofitable venture.

The following translation of an extract from the "Bourse aux Cuirs" of Liege, published in June last, rather points to a prejudice against American leather. Alluding to the scarcity of hides from Rio Grande of really good quality on the Antwerp market, it goes on to say:

It is desirable that these should soon reach the market in order to prevent being obliged to put up with inferior sorts coming from New York, which do not offer the qualities for working so necessary to the trade.

The only opinion I can get an expression of from the Belgian workers in regard to American leather is that it is too heavy and too expensive, and that they prefer the French leather for uppers and the Belgian leather for the soles of boots and shoes.

#### PRICES.

I have obtained from a large dealer in leather the following memorandum of the market prices in June, namely:

	Francs per kilogram.
Strong sole leather:	
18 to 20 kilograms, first quality .....	3.90
16 to 17 kilograms, first quality .....	3.80
Square cow-hides, smooth:	
Middle strength .....	3.90
Strong .....	4.10
Lighter .....	3.70
Cow-leather, Swiss:	
8 to 9 kilograms .....	3.50
Extra strong .....	3.75
Smooth sides:	
Strong .....	2.10
Lighter .....	2.30
Varnished calf, as to quality .....	8 to 13.50
Horse-leather ciré:	
Belgian .....	5.15
French .....	6.15
Goats', per dozen .....	31 to 75.00

With a discount of 2 per cent. for cash.

The home production of leather is very large, and Belgium exports far more than she imports.

#### BOOTS AND SHOES.

The manufacture of boots and shoes is carried on very extensively throughout Belgium. There are large factories at Brussels, Louvain, and Liege, and smaller ones elsewhere. In the town of Iseghem there are

seven hundred and fifty shoemakers; at Sotteghem there are forty masters, working one thousand men; at Binche there are four hundred shoemakers, and at Herve there are about eighty masters, giving employment to about one thousand work-people. Each workman is supposed to make on an average eight pairs weekly; the above mentioned places are small towns, and, if my information is correct (and I believe it to be), it will be seen that the greater part of the population is engaged in this industry.

The sewing of uppers and sides is generally effected by machinery, but the soles are always hand-sown. Wooden or iron pegs are being used, and the people seem to like these latter, but the Belgian workman is slow to learn and resists any innovations.

At Herve the pegging system was introduced, but some of the workmen refused to learn and to use them, and many old hands, good workmen, left the factories and made a living by making by hand a cheap class of slipper, the uppers of which are made of some woolen material.

#### WAGES.

In the town of Lierre, with a population of 16,000, there are about 2,000 engaged in the occupation of making boots and shoes. It is almost impossible to get reliable details of their operations, but from inquiries I have caused to be made on the spot I learn that the work is done at the homes of the workmen or at the employer's shop, as may be most convenient and economical, and that all, except apprentices, are paid by the pair. The following prices have been given to me as the wages paid by the masters to the workmen: For boots, from 2.50 to 3 francs per pair; for men's gaiters, 2 to 2.50 francs; for ladies' gaiters, 1.50 to 2 francs, and for smaller sizes, 1 to 1.50 francs per pair. They do a large business with the laboring classes in Antwerp and with the peasantry of the surrounding district. Many of them have a system of payment by installments; that is, they sell a pair of boots or shoes to be paid for so much a week; and this system is very successful, as the Flemish peasant does not like the idea of parting with money in any considerable sum, though in paying by dribblets he may pay more in the end. The masters go off weekly to the adjacent towns to take measure for new work and orders for repairs, a great convenience for the purchasers, and many go with horse and wagon to the fairs that are held so frequently in Belgium, in order to dispose of their surplus and cheap stock. With the exception of the stitching of the elastics the work here is all done by hand. There is also a small manufactory at Lierre, but it does not seem to be successful, and I could get no information whatever in regard to its operations.

#### PRICES AND STYLES.

The following prices for goods made by hand, and by good workmen, of good material, have been furnished me from Lierre:

	Francs.
<b>Boots:</b>	
Belgian leather; height, 35 centimeters; length of foot, 28 to 32 centimeters.	18
In French leather.....	22
Hunting, to the knees, tops in calf, and double soles, from.....	40 to 50
<b>Gaiters:</b>	
Men's, Belgian leather, elastics.....	16
Men's, French calf.....	20
Ladies', calf leather, cloth, buttons, and English heels.....	15 to 24
Girls', same.....	12
Children's, small size.....	5 to 7
<b>Slippers:</b>	
Men's, Belgian leather.....	8
Men's, French leather.....	9
<b>Shoes, Belgian leather, elastics.....</b>	<b>11</b>

Elastic side boots are preferred and mostly worn by the men; laced and buttoned boots by the women generally, but shoes are also much worn.

The old wooden sabot, which was once so much worn in Belgium even by people of fair means, is slowly giving away to leather shoes, especially in the towns and cities; immense numbers, however, are still turned out annually from old established manufactories, and they are largely exported into Germany.

Brussels is the seat of the fancy trade in boots and shoes, and, though Paris still sends many children's fancy shoes (as parents are willing to pay for the taste displayed), yet Brussels is slowly producing articles which, even in taste, can compete with the Parisian goods.

#### FOREIGN SHOES.

In the official returns boots and shoes are included with the other manufactures of leather, so that there are no statistics in regard to the quantity imported and exported. I think, however, the home production finds a market at home, and that the exports are not large.

Some English houses have turned their attention to Belgium as a field of enterprise in selling English-made goods; in some cases a fair trade has been done, though the English goods are not so strong as the Belgian article, but the price was much lower. So it might be with American goods. If they can be placed in competition at lower prices they will find purchasers. The whole question is one of first cost.

I cannot give here the addresses of "trustworthy persons" who would be willing to engage in the import of American leather, or the products thereof, but if any American manufacturers may wish to find an agent on this market, and will write me on the subject, I will do my best to find a proper person and put them in correspondence.

JOHN H. STEUART,  
*Consul.*

UNITED STATES CONSULATE,  
*Antwerp, July 15, 1885.*

#### GHENT.

#### REPORT OF CONSUL POLACHEK.

#### LEATHER.

The condition and extent of the leather industry in this district is very limited. There are but one large and a few small tanneries, and these manufacture the hides which they obtain in the home market. The supply exceeds their demands, and some hides are exported to France and Holland. The quantity of such exports, however, is very small.

The materials used in tanning are held as a secret by the different tanneries, yet, judging by the immense piles of tan-bark in their respective yards, such bark must be the main material used for such purposes. Of this bark there is a great abundance in Belgium, and small quantities are exported to some parts of Europe, mainly to England.

It is impossible to ascertain the quantity of leather manufactured hereabouts, as such information has been denied to me by the manufacturers.



The home market consumes a considerable quantity, and there are also a few exporters of leather in this city, who sell their wares to Germany and to England. I find in the report of the Commercial League for the year of 1884 that the exportations of all kinds of leather has amounted to over 45,000 kilos in the year named.

#### LEATHER IMPORTS.

All the very fine calf and goat-skin leather, patent leather, and all the different leathers for the manufacture of gloves are imported from France, Germany, and England.

In the year of 1884 the following quantities were imported in this market, viz:

	Kilos.
Germany .....	12, 683
France.....	33, 495
England .....	14, 468
Total .....	60, 646

#### AMERICAN LEATHER.

In reply to the above questions, I have to say that so far no one has attempted yet to import any leather from the United States; consequently no comparison with other manufacturers can be made here; but I judge from my own experience that the sole leather manufactured in America must be superior to that manufactured in this district, either in the quality of the hides used or, possibly, in their preparation for such uses, as the American sole leather seems to be more durable, and withstands a harder usage also.

As in other lines, so also in this line, the only probable way to succeed in forming new business connections is to send samples of our manufactures to the merchants direct, and if the goods are equally as good as others, and no less price worthy, I have not the least doubt that some or all of the following large business firms may be induced to try our market, viz: Mr. G. Lauduit, manufacturer, Eecloo, near Ghent; Mr. E. Vandenbos, manufacturer, Ghent; Mr. E. Lybaert, importer and exporter, Ghent; Mr. V. Moguez & Co., importers and exporters, Ghent; Mr. V. Burseus, importer and exporter, Ghent.

#### BOOTS AND SHOES.

The manufacture of boots and shoes in large quantities, or on a system of a factory, is unknown in this neighborhood, and no machinery of any kind, except the sewing machine (Singer's American Machine), used by the numerous shoemakers in this city. It is also the habit here, for almost every one to get his boots or shoes made to his measure, and as there are two hundred and eighty-five shoemaker shops here, the facilities are exceedingly good. These shops employ from two to twenty workmen each. It is very doubtful whether the American manufacturer could compete against the cheap labor which prevails here, as the very best workman does not earn more than five to six dollars per week. There are a few merchants who deal in ready-made shoes, but these are mostly for ladies' use. The finer qualities are imported from France. The only American style which might possibly be introduced in this market—and the trial should be made—are the large and heavy boots and shoes for the working classes. These are usually

made by the convicts in the penitentiary, and on account of their extraordinary strength and cheapness may find a market here. After a thorough investigation of the matter, I can recommend such a trial.

There is no material difference between the class of styles of boots and shoes worn in this neighborhood from those worn in the United States.

MAX POLACHEK,  
*Consul.*

UNITED STATES CONSULATE,  
*Ghent, June 12, 1885.*

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## VERVIERS AND LIEGE.

REPORT OF CONSUL ROBERTSON,

### LEATHER.

Like every other industry, the leather industry has suffered from the general business depression, and the tanners of my district complain of the general tendency of the governments of surrounding countries to increase the duties on this article. The duties in Germany are given at 50 centimes (10 cents) per kilo (2 pounds), and in France the duty has been increased from .07 centimes (1.2 cents) to 20 centimes (4 cents) per kilogram.

The tanneries are not working at their full capacity just now for the further reason that the price of hides is high, while the price of leather remains at a low figure. In spite of these drawbacks the condition of the leather industry in this district is relatively good. The hides and skins are obtained largely from South America, and cost according to size, quality, demand, &c., from 2.50 to 3.20 francs (50 to 64 cents) per kilogram (2 pounds). Cow skins, delivered at the tanneries, from France, Germany, and Switzerland, cost from 90 centimes to 1 franc; other hides from 1 franc to 1 franc 30 centimes per kilogram. These latter are used for cards, belts, &c. The prices given do not include freight, &c. In my district about 120,000 hides are tanned annually, with a value of some 7,500,000 francs. About 50,000 of these skins, of a value of 3,500,000 francs, are converted into sole leather at Stavelot, where the tanneries are devoted exclusively to this kind of leather. In addition about 10,000 pieces of leather are bought annually outside and worked up in this district. This product is consumed mostly in Belgium, although a small quantity is exported, in spite of the high duties, to Germany, Holland, and France. The price of sole leather varies according to the size of the skin. Skins weighing from 15 to 18 kilograms sell for 3.75 francs, and those weighing 18 to 20 kilograms for 4 francs per kilogram. Hides, tanned, for the curriers, cards, &c., bring, according to size, as follows: those weighing 8 to 10 kilograms at 4.25 to 4.50 francs per kilogram. Skins of 13 kilograms and over at 5.25 to 5.50 francs per kilogram.

Lower grades of leather range from 3 to 4 francs per kilogram. Belgian calf-skin sells at 7 to 7.50 francs per kilogram; best German calf-skin at 12 francs per kilogram, and finest French calf-skin brings 13 francs per kilogram. Patent leather sells from 5 to 14 francs per kilogram, according to size of skin.

## AMERICAN LEATHER.

I find no firms in my district importing American leather direct; in fact very little of it is imported, and that little by way of England.

The American leather known here is of very inferior quality, is in bad repute, and naturally has practically no sale. I do not know the reason for this, whether it is that the American dealers have purposely put an inferior article on this market, or whether the English agents, through whose hands all the American leather known in this market comes, are to blame; or whether again, the fact is, as seems to be quite generally believed here, that only the very cheapest grades of American leather can compete in price with the native article.

The general complaint against the American leather is that the Americans are in too great a hurry to realize, and do not take time enough in the tanning. Here the shortest time in which it is considered that a skin can be properly tanned is one year. With American sole leather the fault is found that it is too hard to be worked by hand in the making of boots and shoes, and it is used only to a very limited extent in making coarse nailed shoes.

## MATERIAL USED IN TANNING.

The material almost exclusively used in tanning in this district is oak bark, which is procured from Belgium and from the Ardennes (French), also from Luxembourg. In Stavelot some 4,250,000 kilograms, and in Liege about 3,000,000 kilograms of bark are used annually for tanning. The bark is taken in the spring of the year, and exclusively from young trees, those from sixteen to twenty-two years old. The reason given for this is that there is more "tannin" in the bark from young trees than in that from older ones. There is from 8 to 10 per cent. of "tannin" extracted from the bark procured from the native trees; that from France is considered to be somewhat richer in "tannin," which is attributed largely to difference in the soil. The Belgian bark costs (to-day) 11 francs (2.20 per 100 kilograms (200 pounds), and the French bark 13 francs per 100 kilograms. A small quantity of oak bark is also procured from Africa, and costs 23 francs (\$4.60) per 100 kilograms. Other substances have also been used in the tanning of hides, such as "valonia," "mimosa," "divi divi," "chestnut," and others. These experiments were not, however, considered satisfactory, and while some of these substances are still employed in certain cases by a few tanners, the majority use nothing whatever but oak bark and time—the latter being considered here almost as important as the former.

The bark is ground very fine, not, however, into a powder, but into a very fine fibrous substance. In many tanneries, where steam power is used, this bark, after having been used for tanning purposes, is run through a press to squeeze out the water, and then fed automatically without further drying, directly from the press into the furnaces as fuel.

## OPERATION OF TANNING.

A very brief description of the processes used here in tanning may not be amiss in this connection. The hides are first washed in pits, being hung over frames in the water, which are agitated sufficiently by machinery to shake and wash out all foreign substances, dirt, &c. The South American hides being salted require washing. They are then put into pits containing water and calx, where they are left from eight to ten days to loosen the hair, which is then scraped off by hand, as, I think, in America. Right here I will mention another fault found with American leather, which is that the inside of the skins is not scraped, whereas here the inside is scraped as carefully as the outside. The hides are next put into pits containing a solution of tannin. They are hung on frames, as in the first instance, agitated automatically in such a manner

that every part of the hide is sure to be subjected to this steeping process, which is called swelling the hide, and is carried on with a gradual increase of the quantity of tannin in the water, for a period of one month, when the skins are thoroughly soaked or swelled. This is all done under cover. After this the hides are spread carefully in pits with a layer of bark between every two hides, where they are left from four to five months. They are then put into other pits in the same manner with fresh bark, and left five to six months longer. They are packed in with dry bark, but water is afterwards admitted. These pits are in the open air and uncovered. Thus about one year is consumed in the tanning of the skins. This is the shortest time, and at Stavelot, in making sole leather, nearly three years is considered necessary.

Three-and-a-half kilos of bark per kilo of hides is given as the average, and the cost is estimated at .40 centimes (.08 cents) for each kilo of hides tanned.

I am informed that except as to the time required, the different operations do not differ very materially from the American, in fact, some American machines are used in the preparation of the leather.

#### MEANS OF INTRODUCING AMERICAN LEATHER.

As to the best means of introducing American leather into this market, it is hard to say. The impression here is that the best grades of American leather are too expensive to compete with the same grades of the native article. At all events, the class of leather so far received here has been a positive injury to the introduction of the American article, and has given it a very bad name.

If the American trade is to be enlarged, the American dealers must take pains to put a first class quality of leather in the market here, and at a reasonable price. This cannot be done merely by circulars, &c. The buyers here must first see the leather, and they say that they cannot, at least in the beginning, buy on sample, because the different pieces vary greatly, even in a consignment supposed to be all of one grade or quality. No buyers here would take any American leather and agree to pay for it until they had had ample time to examine the entire consignment.

The terms of payment are usually forty-five days and 2 per cent. discount.

#### BOOTS AND SHOES.

The factory system is practically unknown here. One firm in Verviers attempted to introduce it, but after losing a very considerable sum of money gave it up. The principal reasons given for the failure are, that each customer wished a shoe of a special form or style; that these forms or styles were purely caprices on the part of the dealers, but that it nevertheless necessitated keeping a stock of goods on hand totally out of proportion to the extent and value of the trade, and which the importance of this trade would not warrant; furthermore, that the wages in Verviers were too high to compete with the wages of other places, notably Louvain, also in Belgium.

All boots and shoes here in Liege are made by hand, no machinery whatever being used, and the product is consumed in the country.

In Herve, a small place near Verviers, the co-operative shoemakers make a shoe for the army which they sell for 11 francs (\$2.20).

Fine boots and shoes are imported from France and England. American boots and shoes are totally unknown to the dealers in my district; it is therefore impossible to make any suggestions as to the correction of faults.

The forms and styles are much the same here as elsewhere, those in vogue at the present time being very pointed. The sizes, on the other hand, are numbered very differently from the American article.

Men's numbers run from 39 to 46, and ladies' from 35 to 40. Sample numbers would want to be, in men's numbers, about 41 to 43, and in ladies', 36 to 38. For example, No. 40 men's shoes would be about 27½

centimeters in length, and there is about three-fourths of a centimeter's difference in the length of the different sizes (numbers). The width is, of course, in proportion to the length. The prices of gentlemen's nice shoes, calf-skin, for instance, run from 21 francs (\$4.20) up to 30 francs (\$6), or 35 francs (\$7), according to finish and reputation of the maker.

There seems to be no difference in price between a ready-made shoe and one made to order, all being made by hand.

#### AMERICAN SHOES.

To introduce American boots and shoes into this market it would be necessary to bring them to the attention of dealers, and that could only be done by sending agents with samples, or by sending on commission.

No shoe dealer here will buy these boots and shoes, which are totally unknown, not only to the public, but to the dealers themselves, and take the chances upon himself of selling them, and it would be worse than useless to attempt to place an inferior article on the market here, because a very good shoe can be bought here for a very reasonable price. One dealer here, Mr. Lamarche, said that he would accept American boots and shoes, and would pay the expense of advertising, and do his best to make them known to the public, but he would not pay for them until he had had an opportunity to satisfy himself that they would take.

I append a few names of dealers. The ordinary terms of payment are forty-five days and 2 per cent. discount:

#### NAMES OF DEALERS.

##### *Leather.*

Ad. Hacken & L. Maréchal, No. 4 Quai de l'Université, Liege.  
Jules Hogge & G. Herman, No. 2 Rue St. Denis, Liege.  
M. Lejeune, No. 10 Quai des Tanneurs, Liege.

##### *Boots and shoes.*

Maison Lamarche, No. 72 Rue des Guillemins, Liege.  
V. & P. Dumoulin, No. 15 Rue Ninave d'Ile, Liege.

In conclusion I would say that all correspondence would have to be in French, and all circulars, &c., in the same language.

G. D. ROBERTSON,  
*Consul.*

UNITED STATES CONSULATE,  
*Verviers and Liege, July 6, 1885.*

## DENMARK.

### REPORT OF CONSUL RYDER.

#### TARIFF.

Sole and upper leather, 9 to 13½ cents a kilo. Boots and shoes, 36 cents a kilo.

#### LEATHER.

The condition and extent of the Danish leather industry may be regarded as very satisfactory and much better than in the neighboring countries, Sweden and Norway. This is partly due to the partiality of



home consumers to their own oak-tanned leather; and although the prices of Danish sole and upper leather are rather high (40 and 60 and 100 cents per one-half kilogram, respectively), the trade is a tolerably profitable one, and the competition from abroad not very great.

As Denmark has an abundant supply of cattle, the tanners can obtain most of their raw material at home, with the exception of those heavy hides which are not produced in this country and those used for harness and other purposes, for which the South American and others of like quality are more suitable. The cost of finishing a hide at a tannery here is about \$2, and for the material, 8 cents per half kilogram. At least one-third of the heavy raw hides before mentioned are imported into this country via Hamburg and Havre.

The main material used now in this country for tanning purposes is oak-bark. Besides this, catechu and divi divi are used, and are imported from England. The exact quantity of leather manufactured in this country cannot be given, but is presumed to be about 50,000 hides annually. Most of the leather tanned in this country is used for home consumption, and only a very small quantity of upper leather (horse) is exported to Sweden and Russia, where there is a good demand for it. The annual importation of foreign leather amounts to 600,000 pounds, but a large quantity of this supply, and especially most of the imports of hemlock sole leather is re-exported to Sweden and Norway, where this article is preferred to home made sole leather on account of its cheapness.

#### AMERICAN LEATHER.

In Denmark, American hemlock leather has been, to a great extent, superseded by the Valdivian sole leather (Chilian), which is preferred on account of its lighter color and more compact and better tanning.

Within the past two years very little American hemlock leather has been consumed in this country; perhaps not more than 500 sides. There seems to be a great prejudice against this leather on account of its red color and fraying qualities in dry weather, and because it is poorly finished.

It is advisable for merchants desiring to transact business in this country to employ reliable agents.

#### BOOTS AND SHOES.

The boot and shoe trade of this country is far from being as good as the leather industry. The dull times have had more influence on this numerous and comparatively less wealthy class of tradesmen than on the richer and better situated tanners; the foreign competition, which is very great in this branch of business, not being considered.

In this city there are at present seven boot and shoe manufactories where improved machinery is used, but the main quantity of this class of goods produced in this country is hand-made. The import of boots and shoes is considerable, say about 200,000 pounds per annum, and more than the entire import of this article into Germany, with a population twenty times as large as Denmark. They are imported in large quantities from Germany, Austria, and France.

The Paris and Vienna style is much preferred, especially by the ladies, to the home-made shape. A few attempts have been made to introduce English and American styles, but have entirely failed, owing to the prejudice against the heavy ill-shaped boots and shoes with broad



toes and low heels, which have been represented in this market as American and English fabrics.

In order to introduce American boots and shoes into this country our manufacturers should imitate the French styles, and as before said, appoint good and trustworthy agents here to represent them.

HENRY B. RYDER,  
Consul.

UNITED STATES CONSULATE,  
Copenhagen, September 30, 1885.

### FRANCE.

Consul Charles P. Williams, Ronen.  
Consul Frank H. Mason, Marseilles.  
Consul George W. Roosevelt, Bordeaux.  
Consul H. Allston Shackelford, Nantes.  
Consul John L. Frisbie, Rheims.  
Consul J. E. Irish, Cognac.  
Consul Benjamin F. Peixotto, Lyons.  
Commercial Agent Theodore Hertzberg, St. Etienne.

### CONVENTIONAL TARIFF.

*Table of duties between France and countries holding commercial treaties on articles of leather which differ essentially from rates of general tariff.*

Articles.	Duties.
	<i>Francs.</i>
Leather, varnished, morocco-grained, or morocco.....per 100 kilograms..	60. 00
Colored sheep-skins.....do.....	45. 00
Other colored skins.....do.....	60. 00
Goat, sheep, and lamb skins.....do.....	10. 00
Others not enumerated.....do.....	10. 00
Articles made from hide and leather:	
Boots.....per pair..	1. 60
Low boots, for men and women.....do.....	1. 00
Shoes.....do.....	50
Gloves of calf-skin or lamb-skin, plainly sewed.....per dozen..	50
Gloves of calf-skin or lamb-skin, embroidered.....do.....	75
Gloves of kid, plainly sewed.....do.....	1. 00
Gloves of kid, embroidered.....do.....	1. 25
Articles of saddlery other than saddles.....per 100 kilograms..	160. 00
Saddles for men.....per piece..	6. 00
Saddles for women.....do.....	8. 00
Articles for harness making.....per 100 kilograms..	40. 00
Belting.....do.....	50. 00
Leather hose.....do.....	50. 00
Wood or card trunks covered with leather.....do.....	60. 00
Pliable morocco.....do.....	160. 00
Hard morocco.....do.....	120. 00
Other articles in hides or leather.....do.....	80. 00

THE CONVENTIONAL TARIFF.

The conventional tariff took effect May 16, 1882.

Table of dates of concluding treaties in accordance with conventional tariff, and of their expiration, and countries to which they apply.

Countries with which treaties have been concluded.	Date of signing.	Date of ratification.	Expiration.
Belgium .....	Oct. 31, 1881	May 12, 1882	Feb. 1, 1892
Italy .....	Nov. 3, 1881	May 14, 1882	Feb. 1, 1892
Portugal .....	Dec. 19, 1881	May 13, 1882	Feb. 1, 1892.
Sweden and Norway .....	May 6, 1882	May 12, 1882	Feb. 1, 1892.
Spain .....	Dec. 30, 1881	May 12, 1882	Feb. 1, 1892.
England .....	Feb. 6, 1882	May 12, 1882	Feb. 1, 1892.
Switzerland .....	Feb. 27, 1882	May 12, 1882	Feb. 1, 1892.
Austria-Hungary .....	Feb. 23, 1882	May 12, 1882	Feb. 1, 1892.
Germany .....	Feb. 18, 1884	Mar. 8, 1884	6 months after notice.
Turkey .....	Treaty of Frankfort of May 18, 1871, article 11, and of December 11, 1871, article 17.	Oct. 1, 1861	1 year after notice.
Russia .....	Apr. 29, 1861 article 15.	July 4, 1874	Treaty clause. Most favored nation.
Bulgaria .....	Apr. 1, 1874		1 year after date of notice.
Roumania .....	Treaty with Turkey April, 29, 1861.		Do.
Servia .....	do.		Do.
	Commercial treaty January 18, 1883.		Do.

According to the law of February 27, 1882, articles of English manufacture are treated the same as those of the most favored nations.

GENERAL TARIFF.

Table of duties upon hides, leather, products of their manufacture, and articles connected with the same.

Articles.	Duties.
	Francs.
Raw-hides, green or dry, large or small .....	Free.
Pektry .....	Do.
Wool in bales, wool from Australia and the Cape .....	Do.
Wool, combed or carded .....	per 100 kilograms.. 25. 00
Dyed wool .....	do 25. 00
Wool, waste .....	Free.
Rough, manufactured, or curled horse and other hair .....	Do.
Colored and other mohair .....	per 100 kilograms.. 10. 00
Dubbings of hides .....	Free.
Other residue in the rough state .....	Do.
Bones, hoofs, and horns in the rough .....	Do.
Palen, coco, and other oils of the Senegal .....	Do.
The same oils brought from elsewhere .....	per 100 kilograms.. 1. 00
Other pure fixed oils .....	do 6. 00
Bark, ground and unground for tanning .....	Free.
Sumac, fustic, barberry, and all other herbs, roots, or leaves, or nuts used in tanning or coloring leather .....	Do.
Turf and peat for fuel .....	Do.
Gallic acid, extract of chestnut, and other extracts, dry or liquid, extracts of vegetables, per 100 kilograms .....	1. 20
Alum of ammoniac and potash and sulphate of aluminium .....	1. 50
Isinglass .....	do 40. 00
Blacking .....	do 4. 00
List and lined slippers, called slippers of Strasbourg .....	do 86. 00
Leather, varnished, morocco-grained, or Persian morocco .....	do 74. 00
Colored sheep-skins .....	do 56. 00
Other colored skins .....	do 74. 00
Goat, sheep, and lamb skins .....	do 10. 00
Others, not enumerated .....	do 50. 00

Table of duties upon hides, leather, products of the manufacture, &amp;c.—Continued.

Articles.	Duties.
<b>Manufactures of hide and leather:</b>	<b>Francs.</b>
Boots ..... per pair..	2. 00
Low boots for men and women ... do ..	1. 25
Shoes ..... do ..	. 75
Gloves of calf-skin or lamb-skin, plainly sewed ..... per dozen..	1. 00
Gloves of calf-skin or lamb-skin, embroidered ..... do ..	1. 50
Gloves of kid, plainly sewed ..... do ..	2. 00
Gloves of kid, embroidered ..... do ..	2. 50
Articles of saddlery, other than saddles ..... per 100 kilograms..	200. 00
Saddles for men ..... each ..	10. 00
Saddles for women ..... do ..	12. 00
Articles for harness-making ..... per 100 kilograms..	50. 00
Belting ..... do ..	62. 00
Leather hose ..... do ..	62. 00
Wooden or card trunks, covered with leather ..... do ..	74. 00
Pliable morocco, such as hat bands, &c. .... do ..	200. 00
Hard morocco ..... do ..	150. 00
Other articles in hide or leather ..... do ..	100. 00
<b>Furs:</b>	
Prepared or sewed together, seal and otter skins, gray squirrels, &c., in pieces and skins, per 100 kilograms ..	<b>Free.</b>
Prepared otherwise than above mentioned ..... per 100 kilograms..	100. 00
Ordinarily manufactured ..... do ..	160. 00
Finely manufactured ..... do ..	500. 00
Sewing machines ..... do ..	6. 00
Plates and bands for cards of leather, not divided ..... do ..	20. 00
Plates and bands for cards of leather, divided ..... do ..	50. 00
Common wooden shoes (sabots) ..... do ..	12. 00
Painted or trimmed wooden shoes (sabots) ..... do ..	25. 00
India-rubber shoes ..... do ..	60. 00
Felt for lining shoes or for soles of shoes ..... do ..	35. 00

Imports and exports of France for the years 1882, 1883, 1884—hides, leather, bark for tanning, boots and shoes.

## IMPORTS.

Articles.	Quantity consumed.			Value.		
	1882.	1883.	1884.	1882.	1883.	1884.
	<i>Kilograms.</i>	<i>Kilograms.</i>	<i>Kilograms.</i>	<i>Francs.</i>	<i>Francs.</i>	<i>Francs.</i>
Large hides .....	30,544,825	34,627,923	35,570,287	48,871,720	58,867,469	60,469,488
Small hides .....	37,714,913	39,096,288	35,428,271	112,322,618	125,319,672	113,909,021
Bark for tanning .....	15,891,131	14,931,952	14,449,892	3,178,226	2,239,792	2,167,483
Leather.....	4,530,490	4,847,822	4,733,147	87,209,155	42,003,178	38,809,905
Boots and shoes .....	*155,103	*203,563	*1,318,380	1,318,380	1,729,784	1,976,805

\* Pairs.

## EXPORTS.

Large hides.....	21,486,803	20,927,079	20,174,800	45,122,566	47,085,928	45,393,300
Small hides.....	7,087,221	5,995,416	4,324,700	23,913,704	24,374,960	17,314,490
Bark for tanning .....	37,393,791	40,003,350	39,043,509	7,478,758	6,000,504	5,856,526
Leather.....	10,846,828	10,687,132	10,666,763	103,539,568	105,992,598	109,885,369
Boots and shoes .....	8,581,696	3,171,301	3,107,833	87,393,389	77,379,751	75,831,140
Harness .....	217,019	197,342	160,876	683,600	621,626	506,759
Fine saddlery.....	131,865	138,315	126,683	1,265,904	1,327,824	1,216,157

*Commerce of France in leather and its products, with some of the principal European countries and the United States in the years 1869, 1881, and 1882.*

## GERMANY.

Articles.	1869.	1881.	1882.
<b>IMPORTS.</b>			
	<i>Francs.</i>	<i>Francs.</i>	<i>Francs.</i>
Hides .....	15,300,000	23,200,000	.....
Peltry .....	4,900,000	5,600,000	21,600,000
Leather and manufactures of leather .....	2,900,000	5,700,000	6,700,000
<b>EXPORTS.</b>			
Bark for tanning .....	.....	2,400,000	2,800,000
Peltry and hides .....	3,900,000	17,300,000	17,100,000
Leather and articles of leather .....	6,600,000	9,000,000	14,800,000

## ENGLAND.

<b>IMPORTS.</b>			
Hides .....	3,000,000	4,300,000	5,100,000
Peltry .....	6,000,000	4,300,000	3,900,000
Leather and articles manufactured from leather .....	6,300,000	16,000,000	18,300,000

## SPAIN.

<b>IMPORTS.</b>			
Bark for tanning .....	100,000	300,000	200,000
Hides .....	4,200,000	5,000,000	5,300,000
<b>EXPORTS.</b>			
Hides and peltry .....	800,000	3,500,000	2,900,000
Leather .....	1,600,000	2,600,000	2,800,000
Articles made from leather .....	400,000	500,000	700,000

## UNITED STATES.

<b>IMPORTS.</b>			
Hides and peltry .....	400,000	1,500,000	1,500,000
<b>EXPORTS.</b>			
Hides .....	400,000	7,800,000	9,300,000
Leather and articles made from leather .....	18,800,000	28,900,000	32,100,000

## ITALY.

<b>IMPORTS.</b>			
Sumac fustic .....	1,600,000	2,500,000	3,100,000
Hides and peltry .....	6,500,000	6,500,000	7,400,000
Leather and articles made from leather .....	500,000	2,500,000	2,800,000
<b>EXPORTS.</b>			
Hides and peltry .....	3,600,000	3,800,000	4,400,000
Leather .....	5,300,000	8,000,000	8,800,000
Articles made from leather .....	1,100,000	800,000	600,000

*Commerce of France in leather and its products, &c.—Continued.*

## NETHERLANDS.

Articles.	1880.	1881.	1882.
<b>IMPORTS.</b>			
Hides .....	<i>Francs.</i> 1,600,000	<i>Francs.</i> 3,800,000	<i>Francs.</i> 2,700,000
<b>EXPORTS.</b>			
Hides .....	1,400,000	3,700,000	3,200,000
Articles made from leather .....	100,000	700,000	

## PORTUGAL.

<b>IMPORTS.</b>			
Hides .....	100,000	100,000	300,000
<b>EXPORTS.</b>			
Hides .....	300,000	500,000	500,000
Articles made from leather .....	100,000	200,000	400,000

## RUSSIA.

<b>IMPORTS.</b>			
Hides and peltry .....	300,000	2,700,000	1,800,000
<b>EXPORTS.</b>			
Hides .....		400,000	500,000
Leather .....		400,000	600,000
Articles made from leather .....	200,000		

## SWITZERLAND.

<b>IMPORTS.</b>			
Hides and peltry .....	2,900,000	4,700,000	4,100,000
Leather .....	300,000	400,000	400,000
<b>EXPORTS.</b>			
Bark for tanning .....		700,000	1,100,000
Hides and peltry .....	600,000	1,100,000	900,000
Leather, and articles made from leather .....	2,300,000	11,700,000	12,200,000
Dubbing .....	3,100,000	1,700,000	1,200,000

## TURKEY.

<b>IMPORTS.</b>			
Hides and peltry .....	5,500,000	10,700,000	7,800,000
Leather .....		300,000	700,000
<b>EXPORTS.</b>			
Hides and peltry .....	400,000	1,400,000	2,700,000
Leather .....	8,200,000	7,800,000	9,100,000
Articles made from leather .....	1,700,000	800,000	

*Commerce of France in leather and its products, &c.—Continued.***AUSTRIA.**

Articles.	1880.	1881.	1882.
<b>IMPORTS.</b>			
	<i>Francs.</i>	<i>Francs.</i>	<i>Francs.</i>
Hides and peltry .....	1,900,000	3,700,000	5,000,000
Leather .....	100,000	400,000	.....
Articles made from leather .....	900,000	900,000	1,300,000
<b>EXPORTS.</b>			
Hides .....	100,000	200,000	.....
Leather and articles made from leather .....	200,000	1,300,000	600,000

**BELGIUM.**

<b>IMPORTS.</b>			
Bark for tanning .....	400,000	700,000	800,000
Hides and peltry .....	4,400,000	4,000,000	4,400,000
Leather .....	2,200,000	5,600,000	7,600,000
Articles made from leather .....	.....	500,000	600,000
<b>EXPORTS.</b>			
Bark for tanning .....	1,400,000	2,800,000	2,900,000
Hides and peltry .....	3,700,000	11,800,000	19,300,000
Leather .....	3,500,000	4,300,000	4,300,000
Articles made from leather .....	.....	8,200,000	5,500,000

**EXPORTS.**

Articles.	1883.	1884.	1885.
Large hides .....	5,431,897	4,089,548	4,372,102
Small hides .....	1,347,808	1,295,790	856,138
Tan bark .....	3,363,796	3,288,760	4,235,943
Nut-galls .....	41,139	59,089	29,459
Leather .....	2,454,899	2,172,951	2,481,910
Harness .....	86,644	16,479	55,967
Fine saddlery .....	32,509	23,027	20,336
Leather shoes .....	728,285	594,256	664,796

The figures show that the imports of leather have not increased in these years, but materially lessened in 1885 compared with 1884, while hides have been imported in greater numbers. The most important branch of the leather trade, that of boots and shoes, shows signs of foreign interference to a degree which causes alarm to the French shoe manufacturer and dealer. The main hope and reliance of this trade to maintain its position seems to be in the best class of this work, for which France has long been celebrated. The common articles are introduced in such a manner from abroad that the shoe interest is much affected by it and powerless to obstruct its progress.

Consul Williams adds the following notes and comparisons on the leather trade of France:

**HIDES AND LEATHER.**

The hide and leather trade of France is a most important branch of its national commerce, and interests, to a greater or less degree, the agriculturist, mechanic, manufacturer, and merchant. This trade, on the whole, seems to increase rather than diminish throughout France. An examination of the following table indicates the amount of this increase during the last ten years.



*Hides and rough peltry.*

	Average.		1882.	1883.
	1873 to 1877.	1878 to 1882.		
	Francs.	Francs.	Francs.	Francs.
Imports.....	171, 230, 000	165, 126, 600	166, 892, 000	180, 480, 000
Exports.....	39, 892, 200	59, 625, 600	75, 866, 000	74, 663, 000
Total .....	213, 622, 200	224, 752, 200	242, 258, 000	255, 152, 000

All of the large hides have advanced in price during the year 1883. The advance of kid-skins has been remarkable, as they have been much sought after for ladies' slippers. Their value for gloves remains stationary. The receipts of sheep-skins from Algeria fell from 719,730 kilograms in 1881 to 382,113 kilograms in 1883. The most considerable exports were made to Germany.

## PREPARED SKINS.

On the whole the trade in prepared skins is progressive, as the following figures indicate:

*Table of commerce of France in prepared skins.*

	Average.		1882.	1883.
	1873 to 1877.	1878 to 1882.		
	Francs.	Francs.	Francs.	Francs.
Imports.....	30, 814, 000	31, 536, 800	25, 427, 000	40, 774, 000
Exports.....	89, 452, 400	95, 802, 200	103, 087, 000	104, 214, 000
Total .....	120, 266, 400	126, 839, 000	128, 514, 000	144, 988, 000

The increase of the imports and exports evinces the importance of the home absorption of these products. The exports of simply tanned hides remain unchanged, while curried leather has fallen off nearly 9,000,000 of francs. On the contrary the colored and morocco finished leather, the manufacture of which employs many workmen at Paris, has increased its sale and production.

Belgium and Germany have bought much less of these articles, but the French trade has successfully sought other outlets which more than compensates them for this loss.

Sheep, lamb, and goat skins have advanced 10 per cent. German manufacturers of morocco are ready purchasers of sheep skins.

Gilt and glazed leather of French manufacture has been always sought after, and forms a large item in the exports of prepared skins. Tan bark has fallen 25 per cent.

Sumac has risen sensibly in consequence of a moderate crop, and the considerable purchases made by buyers in the United States. Articles manufactured of leather have met with less foreign demand in the last year.

*Manufactured goods of leather and skins.*

Average exportation :	Francs.
1873 to 1877.....	153, 043, 000
1878 to 1882.....	161, 138, 400
1882 .....	166, 580, 000
1883 .....	142, 596, 000

This loss from one year to the other of 13,981,000 francs is about 9 per cent. This loss is divided as follows: 2,466,000 francs upon the article of gloves, and 1,389,000 francs upon morocco; but this diminution is the greatest upon the article of shoes, the exports of which have decreased 10,000,000 of francs. The exports of this article which were formerly 100,000,000 of francs have fallen to 77,000,000 of francs.

The imports of manufacturers of leather and skins have increased, but not materially in gloves and morocco. The exports of shoes, which were 93,000,000 in 1881, were only 77,000,000 in 1883, indicating an annual reduction of about 10,000,000 of

frances. During this period the imports of shoes rose from 954,858 francs to 1,760,987 francs, a very significant figure when compared with that of the exports.

Fine saddlery and harness exports are the same in 1882 and 1883, and without change in the cost of material or manufacture.

Carriage manufacturing increased rapidly in the year 1882, but although the exports compare favorably with some former years they are not equal to them. As this is an important trade by itself, as well as a factor in the leather business, a glance at the state of imports and exports of this trade is annexed.

*Carriage manufacture.*

	Average.		1882.	1883.
	1873 to 1877.	1878 to 1882.		
	<i>Francs.</i>	<i>Francs.</i>		
Imports .....	2,686,800	6,076,200	10,648,000	5,137,000
Exports .....	5,738,600	4,249,400	8,535,000	6,822,000
Total .....	8,425,400	10,325,600	19,183,000	11,959,000

This trade has lost nothing during ten years, and prices have been well maintained. Less peltry, rabbit and goat skins have been imported into France during the last year. The decline is 1,573,081 francs, and due to the tariff which strikes these articles, and many experts in the manufacture of these articles have been attracted to the United States, where the industry formerly peculiar to France now thrives.

Fine furs have been manufactured and sold to a moderate extent.

The trade in castor, rat, hare, and rabbit skin is most important in quantity and value. The imports of these articles rose from 154,836 kilograms in 1882 to 203,826 kilograms in 1883. This rise is of no commercial importance. The leather cutters have all been employed, and the figures of exports are large, but the price has not been well maintained, and great fear is felt in the trade lest the effect of the United States tariff will be to induce the French leather cutters to follow the polishers to America. Having just now received the last statistical document published by the Government of France, containing the imports and exports for the first three months of the last three years, I will venture to make a few extracts:

IMPORTS.

[Weights in kilograms.]

Articles.	1883.	1884.	1885.
	<i>Francs.</i>	<i>Francs.</i>	<i>Francs.</i>
Large raw-hides .....	7,254,300	7,554,000	7,628,260
Small raw-hides .....	9,056,000	10,246,000	12,841,680
Tan bark .....	2,728,300	2,889,000	1,689,421
Nutgalls .....	388,800	497,000	279,046
Leather .....	1,036,436	1,331,838	1,050,000
Fine saddlery .....	2,017	1,850	2,147
Leather shoes (pairs) .....	39,976	53,704	50,217

PRICES.

Grained morocco, all colors, for boots and shoes, according to size:

	<i>Francs.</i>
Black .....	65.00 to 165.00
Colored .....	85.00 105.00

Seal and crocodile leather:

Seal .....	per dozen..	150.00	170.00
Crocodile .....	per skin..	30.00	40.00
Snake, &c .....		50.00	80.00

Sheep-skin, for lining:

Extra quality, from 5 kilograms .....	48.00	50.00
Ordinary .....	46.00	48.00

**Tops of men's boots, ready for mounting, calf-skin and kid :**

Franca.

Kid, with patent leather trimmings.....	pairs..	7. 00	to 11. 00
Cloth, elastic.....	do....	6. 00	11. 00
Goat.....	do....	5. 60	9. 75
Calf.....	do....	5. 75	10. 00
Varnished cow-skin.....	do....	7. 00	11. 00
Kid.....	do....		8. 00
Men's calf-skin slippers.....	do....	3. 25	5. 00

**Tops of women's boots :**

Goat.....		4. 50	5. 50
Calf.....		5. 15	5. 50
Kid.....		5. 50	6. 25
Satin.....		3. 00	4. 00

**Shoes, average height about 5 inches :**

Satin.....		4. 00	6. 00
Kid.....		8. 00	11. 00
Glazed goat.....		10. 00	14. 00

**Unpolished goat skins, black or colored :**

Black, for men.....	per dozen..	95. 00	115. 00
Black, for women.....	do....	70. 00	90. 00
Polished, for uppers.....	do....	65. 00	95. 00
Polished, for edges.....	do....	30. 00	32. 00
Bronzed, for tops.....	do....	65. 00	75. 00

Kid and lamb, different colors, for lining, from 20 to 30 francs a dozen.

**Strong leather :**

First quality leather, 26 kilograms and over, according to weight	4. 40	4. 60
First quality, medium, and light leather, 20 to 24 kilograms. ..	4. 20	4. 40
First choice, ordinary quality, 25 kilograms and over.....	4. 20	4. 40
Second choice, medium and light.....	4. 10	4. 30
Buenos Ayres, first quality, heavy leather.....	4. 10	4. 40
White or waxed calf-skin (one-third being female, first quality, according to choice) 10 to 15 kilograms.....	10	10. 15
40 to 45.....	6	6. 25

For one franc less a kilogram a very excellent second quality may be obtained. The calves from the abattoir at Paris, when cut, weigh from 18 to 24 kilograms. They are always worth 75 centimes the kilogram more than the prices above mentioned. To have one-half females costs 50 centimes more a kilogram. All females 1 franc more the kilogram.

Franca.

The latest Rouen market quotations per 50 kilograms are :

Ox and cow hides, 50 kilograms and over.....	52
Ox and cow hides, 40 to 49 kilograms.....	50. 18
Ox and cow hides, 30 to 39 kilograms.....	47. 81
Ox and cow hides, 29 kilograms and over.....	45
Bull's hides, all weights.....	38
Calves, with heads, 6 kilograms and over.....	75
Calves without heads, 7 kilograms and over.....	63
Skin of shorn sheep.....	30. 65

**Prices of foreign hides :**

100 Buenos Ayres dried ox hides, very good quality, weighing from 14 kilograms.....	135
400 Montevideo dry ox hides, good quality, from 17 kilograms.....	110
100 Rosario dry ox hides, second quality, from 17 kilograms.....	98
622 Montevideo green salted ox hides, good medium quality, 28 kilograms.....	68

## REPORT OF CONSUL WILLIAMS.

## SOLE LEATHER.

The origin of tanning or the combination of tannin contained in certain plants with organic substances has not been clearly traced. Although practiced by old nations, each one guarding its secret, increasing demand was an incentive to greater effort to utilize and economize the art of tanning. Doubtless in many instances latterly this has been pushed to an extreme, and some of the new modes of tanning rapidly have failed to produce good leather, while much of the machinery introduced to save hand-labor has not only succeeded in that respect, but has given a firmness and finish to the leather, which has greatly increased its intrinsic value.

There is probably no better sole leather to be found than the oak-tanned leather of France and England, by what is known as the old process, when allowed to remain long enough in the vats. The same remark would equally apply to America, where the same tanning process is adopted, but where the time of remaining in the vats is shortened. The recent tendency is not to the general improvement of the French sole leather. The home production of raw hides of France, as of other countries, being insufficient, the balance is drawn from Central and South America, India, and other usual sources of supply, not differing much in this respect from the United States.

The principal tanneries are at Paris, Chateau Renault, Saint Saëns, Port Andemes, the Ardennes, Burgundy, Lille, and Desores, while throughout France there is scarcely a village of 1,500 inhabitants without its tannery.

## TANNING MATERIALS.

In the south of France much leather is tanned from garonille. This leather is not prepossessing in appearance, but wears well. Its offensive odor must always limit its sale. Among the other best recognized materials used in tanning are found the chestnut wood, the quebrachocolorado, and various extracts brought from England to America.

Fair leather and good imitations of the oak-tanned leather have been with these materials produced, but far inferior in durability.

The oak bark of France is taken from the trees of from ten to twenty years' growth, and these forests are so cared for that the supply is perpetual. From a table of strength of one hundred specimens of bark, selected from different parts of France of trees varying in age from eight to sixty years, the best results were obtained from fifteen to twenty years. Green oak bark, in the district where it grows, is worth from \$27 to \$29 per 2,200 pounds, and ground bark \$29 to \$31. To these prices must be added transportation to the tannery. African garonille costs \$44.41 to \$46.32 per 2,200 pounds at Paris. Ground quebracho, at the railway, \$28 to \$30 per 2,200 pounds; chestnut at Paris, \$13 to \$14 per 2,200 pounds; chestnut at stations where grown, \$3 to \$4 per 2,200 pounds; fir, \$18 to \$20.

Twenty-six pounds are allowed to each hide. The expense of tanning is calculated in the north of France to be about 9 to 10 cents per kilogram fresh hides. Workmen's wages vary from 75 to 80 cents per day.

Sole leather varies in price according to quality.

Ox-hides bring from 95 to 120 francs per 2,200 pounds; cow-skins, 95 to 105; bulls' hides, 80 to 85.

The leather of the French colonies is of fair quality to inferior, and is

tanned with their native barks, such as the mimosa, divi-divi, the wood of the quebracho, and others. The quebracho-tanned leather is porous, and only suited to the uses of a mild climate.

#### AMERICAN LEATHER.

The American hemlock-tanned leather meets with no favor. Its color goes far to condemn it in the eyes of those accustomed to the light-tinted oak-tanned leather. The oak-tanned leather of America is as good as any other when kept long enough in the vats, but is very critically inspected, and if slightly wrinkled about the flanks, or the most minutest detail of preparation is omitted, or overlooked, its value is greatly prejudiced.

The tint of the hemlock-tanned leather is not always uniform throughout the entire side, varying from red to oftentimes a dirty yellow, and this is again an eyesore. Although the defects of color might be overcome, it might be judicious to compromise by obtaining a leather from mixed oak and hemlock barks, lighter and, above all, uniform in tint. The improved manufacture of bark extracts renders this feasible, as the kind of bark of which a certain section is deficient can thus be readily supplied by another.

With the advantage of 20 per cent. in favor of native hides, and from 60 to 70 per cent. in oak and hemlock bark, it is surprising that so little American leather has found its way to Europe. A portion is supplied to France by the way of England. I think that it is rather owing to the fact that the American tanner thought that it would find its own way there without his guidance.

#### BOOTS AND SHOES.

A prejudice similar to that in regard to American leather prevails in France against American shoes, and the difficulties in the way of their introduction are greater. It is only necessary to allude to a few to substantiate this assertion.

The uppers of boots and shoes are mainly made from cow-calf and horse skins, Morocco and glazed leather. In the manufacture of these articles the French claim a superiority. The tanning of these skins is effected with a small quantity of bark and largely with chemicals.

Machinery is extensively used, though not so generally as in America, while hand labor is certainly paid 25 per cent. less. This market requires a light class of boots and shoes, as the climate is mild and the roads are smooth.

The French have peculiar tastes and believe that their shoes are inimitable in material, workmanship, and above all in style. Take for instance their ladies' dress slipper, the distinguishing features of which are the pointed toe and a high heel, sloping from the place where the heel belongs to the center of the foot. This peculiar structure is extended to their walking shoes, and it is a sad fact that they have been sent in countless numbers to America and other countries, and have been readily sold, when to the casual observer they would simply appear to be refined instruments of torture.

Wooden shoes and wooden soles, card-board and straw soles, with prunella and cloth uppers, are cheaply manufactured and find favor among the working classes.

The French have possessed themselves of the secret of cheap manufacturing, so that, while maintaining a fair exterior, they can deteriorate

the quality to such an extent that it is more than an offset to any foreign competition.

The French in their rivalry with other European nations, admit a certain equality, but take extreme measures when America enters the field.

#### AMERICAN GOODS.

Apart from the disadvantageous position in which the American manufacturer is placed on account of his exclusion from the more favored treaties of France with almost all the other European nations, the American manufacturer would find himself at an inopportune time in face of a French prohibitory tariff. This prohibition is the defensive weapon which France employs against America. She did not hesitate to apply it in the case of American pork, nor, under plea of suffering agriculturists at home, to increase the duties upon grain, so that these manufactories of shoes, using machinery and employing from one to three hundred work men and women, and turning out from 100,000 to 300,000 pairs of shoes, are scattered over all France. In a small town called Lillers, in this consular district, in the Pas-de-Calais, there are many manufacturers and shoemakers, and it is said of men born in that place that they have the gift of shoemaking. Boulogne-sur-mer and Lille manufacture shoes somewhat extensively. Shoe-vendors are more numerous than shoemakers, and the heavy nailed shoe, the wooden solid shoe, and the shoes of luxury will soon be the only hand-made shoes. Articles of necessity rank in the category of French luxuries.

These difficulties and others which might be mentioned suffice to show that the American vendor of boots and shoes would not find an eager crowd in France ready to purchase.

#### OPENING THE MARKET.

As to the best manner of effecting sales, if buyers do not seek you you must go to them; if you do not speak their language you must obtain the assistance of some one who does. The wants and requirements of a country can only be ascertained by visiting it frequently and establishing such agencies as circumstances would seem to warrant.

From my own observation I believe that America can produce as good leather and manufacture the same with as much artistic taste in any desirable form and at as low price as France, and that the beginning of wisdom would be to convince Americans of the fact. America needs neither French leather nor shoes, and can safely place these articles of her own manufacture in any market side by side with those of France or any other European country.

CHAS. P. WILLIAMS,  
*Consul.*

UNITED STATES CONSULATE,  
*Rouen, June 25, 1885.*

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[Inclosure in Consul Williams's report.]

I insert here below an extract from the "Shoemaker's Manual," of Paris, of last month, which emphasizes conclusions of this report. These articles, although illustrated, need no cuts to bring them vividly before both the manufacturers and their ordinary customers. It is upon these and like articles that much money is squandered (for no milder term will apply), and which can be produced in any quantity in America in as good taste, for at least the same price, and thereby retain the money at home. I append prices:

A ladies' walking shoe of Persian morocco, varied to suit moist climates, in fine kid,



with Louis XV heel, white stitching; retail price, 35 to 40 francs per pair; wholesale price, 21 to 25 francs per pair.

Casino boot, embroidered with beads and silk, finely sewed and well finished; retail, 38 to 40 francs per pair; wholesale, 25 to 29 francs per pair.

Evening slippers of colored satin, embroidered in pearls or gold, with an ornamental bow; retail, per pair, 35 to 40 francs; wholesale, per pair, 18 to 25 francs. If plain, can be purchased as low as 12 francs.

Sea-side shoe, a strong shoe of patent leather, laced in front, from 40 to 45 francs per pair, at retail, for women, 10 francs additional for men. These shoes are not sold at wholesale.

Sea-side shoes for men, canvas shoes, with moderate heel, trimmed with buff calf-skin and firmly made, varies 35 to 40 francs per pair. An imitation sells for much less.

Riding boots, the uppers of finely waxed calf-skin, not thicker than kid, the sole light, almost, as pumps, heel low; at retail, per pair, 85 to 100 francs; spurs, additional, 10 to 20 francs.

## MARSEILLES.

### REPORT OF CONSUL MASON.

Although Southeastern France is not well adapted to cattle-raising, and is, moreover, but sparsely supplied with the forests which, in other countries, furnish bark for tanning purposes, the traffic of Marseilles in hides and skins of various kinds, both raw and tanned, has long been important.

From the following tables, which show the exports and imports of hides and skins at Marseilles for 1884 (a year in which all commerce at this port was more or less affected by the cholera epidemic of last summer), it will be seen that this city draws its supply from numerous remote and widely-separated countries:

#### IMPORTS.

[In this table of imports the second column, under the head of "duty paid," shows the amount in each class upon which duties were paid for local consumption, the remainder having been exported or simply passed through this city in transit to other countries.]

Articles.	Quantity.	Duty paid.
<b>Raw (salt and dry) hides:</b>	<i>Pounds.</i>	<i>Pounds.</i>
Argentine Republic.....	2,779,650	1,720,229
China.....	2,714,592	497,018
East Indies.....	2,513,749	1,444,835
United States.....	1,350,728	1,246,670
Algeria.....	1,165,082	1,147,690
Japan.....	765,565	.....
Egypt.....	645,962	345,284
Australia.....	501,960	9,589
Other countries.....	2,557,936	1,795,273
<b>Total.....</b>	<b>14,995,224</b>	<b>8,206,088</b>
<b>Raw sheep-skins:</b>		
Argentine Republic.....	1,101,273	1,096,963
Australia.....	662,886	370,529
Algeria.....	558,767	558,681
Russia.....	555,795	555,795
Italy.....	377,551	376,228
Turkey.....	272,823	268,355
Other countries.....	967,451	757,648
<b>Raw lamb-skins:</b>		
Italy.....	279,706	279,706
Algeria.....	49,132	49,132
Turkey.....	25,785	25,785
Greece.....	23,613	23,613
Other countries.....	88,722	88,557
<b>Total.....</b>	<b>466,958</b>	<b>466,793</b>

## IMPORTS—Continued.

Duty paid.	Quantity.	Duty paid.
	<i>Pounds.</i>	<i>Pounds.</i>
<b>Raw goat-skins:</b>		
Turkey .....	3, 209, 721	3, 168, 290
Morocco .....	2, 413, 572	2, 413, 572
Algeria .....	2, 196, 105	2, 191, 366
Tunis .....	919, 245	919, 245
England .....	637, 118	628, 487
Italy .....	476, 211	467, 363
United States .....	24, 827	24, 327
Other countries .....	659, 195	557, 240
<b>Total .....</b>	<b>10, 535, 494</b>	<b>10, 369, 889</b>
<b>Raw kid-skins:</b>		
Italy .....	618, 187	618, 187
Turkey .....	171, 004	171, 004
Argentine Republic .....	165, 967	165, 967
Roumania .....	161, 414	161, 414
Greece .....	68, 245	68, 245
Spain .....	50, 439	50, 439
United States .....	2, 864	2, 864
Other countries .....	143, 898	138, 485
<b>Total .....</b>	<b>1, 382, 568</b>	<b>1, 377, 156</b>

## EXPORTS.

[In the returns of exports, the first column includes the total amount of exportation of the several classes of merchandise; the second column, headed "special," gives only the exports of goods of French origin, or rated as such after being imported and the duties paid thereon.]

Articles.	General.	Special.
	<i>Pounds.</i>	<i>Pounds.</i>
<b>Raw (salt and dried) hides:</b>		
Italy .....	4, 338, 410	1, 014, 812
England .....	2, 349, 491	644, 012
Turkey .....	1, 922, 587	1, 630, 163
Spain .....	1, 464, 390	231, 935
Algeria .....	597, 863	526, 983
Other countries .....	1, 605, 918	1, 338, 871
United States .....	138, 206	138, 206
	<b>12, 416, 865</b>	<b>5, 534, 962</b>
<b>Raw sheep-skins:</b>		
England .....	410, 005	15, 805
Italy .....	112, 157	15, 650
United States .....	1, 850	1, 850
Other countries .....	12, 557	12, 557
<b>Total .....</b>	<b>536, 569</b>	<b>45, 862</b>
<b>Raw lamb-skins .....</b>	<b>2, 470</b>	<b>2, 307</b>
<b>Raw goat-skins:</b>		
United States .....	187, 179	175, 576
Italy .....	100, 210	98, 865
Spain .....	82, 006	7, 220
England .....	60, 984	47, 727
Greece .....	36, 226	36, 226
Other countries .....	32, 134	20, 150
<b>Total .....</b>	<b>499, 739</b>	<b>385, 764</b>
<b>Raw kid-skins:</b>		
United States .....	18, 135	18, 135
Germany .....	11, 684	11, 684
Other countries .....	3, 905	3, 905
<b>Total .....</b>	<b>33, 724</b>	<b>33, 724</b>

## THE TANNING INDUSTRY.

The materials used in tanning are live-oak bark, sumac leaves and ground sumac, which are imported in immense quantities from Algeria, Sicily, Corsica, Tunis, the East Indies, and even from Australia.

Oak bark is worth in this market about \$30 to \$32 per ton, while sumac leaves, which are imported in bales, command from \$3 to \$6 per hundred-weight, according to quality and state of the market.

*Exports of tanning materials at this port during the year 1884.*

## TANNING BARKS.

Imports from—	General.	Duty-paid.	Exports to—	General.	Special.
	<i>Pounds.</i>	<i>Pounds.</i>		<i>Pounds.</i>	<i>Pounds.</i>
Algeria .....	2, 094, 741	2, 094, 741	Italy .....	1, 020, 353	1, 020, 353
Italy .....	268, 520	233, 246	Algeria.....	425, 649	425, 649
Turkey .....	157, 615	66, 297	Russia .....	315, 037	315, 037
Tunis .....	154, 837	104, 813	Greece .....	251, 051	214, 710
East Indies .....	117, 626	44, 606	Belgium.....	243, 716	.....
Australia.....	114, 906	3, 526	Turkey.....	114, 875	114, 875
Other countries .....	110, 877	62, 303	Other countries .....	264, 689	23, 653
Total.....	3, 018, 622	2, 609, 532	Total .....	2, 635, 370	2, 114, 277

## SUMAC LEAVES.

Italy .....	4, 472, 915	4, 408, 969	Argentine Republic.....	92, 086	37, 700
Switzerland .....	22, 052	22, 052	Algeria .....	8, 818	220
Other countries .....	977	977	Other countries .....	661	.....
Total.....	4, 495, 944	4, 431, 998	Total .....	101, 565	37, 920

## SUMAC (GROUND).

Italy .....	5, 044, 932	5, 026, 984	England.....	793, 656	793, 656
Austria .....	290, 804	276, 276	Algeria.....	24, 581	4, 740
Other countries .....	51, 962	49, 760	Spain.....	22, 046	22, 046
			Other countries .....	40, 675	26, 014
Total.....	5, 387, 698	5, 353, 020	Total.....	880, 958	846, 456

There are at Marseilles three large and a number of smaller tanneries, mainly devoted to tanning goat and sheep skins. The largest of these establishments, that of "La Société des Tanneries Marseillaises Réunies," has a working capacity of one thousand dozens of goat-skins per day, and the whole product of the city, in this one article, is not less than five hundred thousand dozens per annum. Shoe and harness leathers are not tanned in Marseilles to any great extent (not more than 3,500 hides being manufactured here in an average year), but there are numerous tanneries in this consular district, notably at Barjols, department of Var, and along the river Isère in department of Drôme, where sole and upper leather of all grades are tanned, mainly with spruce and oak bark, either native or imported.

## IMPORTS OF TANNED SKINS.

The importation of tanned skins of all kinds amounted in 1883 to 571,832 pounds, of which one-third was used for manufacture in the city and department of Marseilles, the remainder being re-exported to other European countries.

*Imports and exports at this port of tanned leathers of all kinds during the year 1884.*

**TANNED GOAT AND SHEEP SKINS.**

Imports from—	General.	Duty paid.	Exports to—	General.	Special.
	<i>Pounds.</i>	<i>Pounds.</i>		<i>Pounds.</i>	<i>Pounds.</i>
Tunis.....	67,648	105,765	United States.....	309,451	309,451
East Indies.....	24,519	20,192	Italy.....	40,648	39,078
England.....	19,426	19,426	Turkey.....	35,256	35,035
Algeria.....	6,714	6,714	Greece.....	29,965	29,965
Other countries.....	18,892	14,908	Algeria.....	27,522	23,206
			Other countries.....	25,562	19,271
<b>Total .....</b>	<b>137,199</b>	<b>167,005</b>	<b>Total .....</b>	<b>468,404</b>	<b>456,006</b>

**HIDES, ROUGH TANNED.**

Italy.....	141,652	5,453	Algeria.....	814,617	813,901
Algeria.....	4,475	4,475	Turkey.....	747,013	651,982
Australia.....	3,657	1,175	Greece.....	212,003	198,606
United States.....	1,095		Tunis.....	99,262	99,262
Other countries.....	14,448	1,157	Italy.....	69,244	68,630
			United States.....	2,204	2,204
			Other countries.....	191,830	167,255
<b>Total .....</b>	<b>165,327</b>	<b>12,260</b>	<b>Total .....</b>	<b>2,135,673</b>	<b>2,001,830</b>

**CURRIED LEATHER.**

Germany.....	6,289		Turkey.....	1,649,395	1,642,107
England.....	8,322		Algeria.....	584,034	583,824
Egypt.....	5,511		Italy.....	501,833	499,906
Algeria.....	1,411	1,411	Greece.....	356,045	356,045
United States.....	66		Egypt.....	251,800	244,183
Other countries.....	7,924		Argentine Republic.....	142,820	142,820
			United States.....	54,407	54,407
			Other countries.....	472,745	459,696
<b>Total .....</b>	<b>29,473</b>	<b>1,411</b>	<b>Total .....</b>	<b>4,013,139</b>	<b>3,983,056</b>

**ALUM-TANNED LEATHER.**

Italy.....	12,700	12,700			
Spain.....	489	489			
Other countries.....					
<b>Total .....</b>	<b>13,189</b>	<b>13,189</b>	<b>Total .....</b>	<b>7,065</b>	<b>7,065</b>

**PATENT LEATHER.**

Germany.....	39,290	614	Turkey.....	90,631	84,573
Switzerland.....	4,764		Spain.....	37,604	5,681
Tunis.....	562	6	Algeria.....	11,834	7,939
Other countries.....	3,680	198	Other countries.....	95,953	87,616
<b>Total .....</b>	<b>48,296</b>	<b>818</b>	<b>Total .....</b>	<b>236,022</b>	<b>186,799</b>

**PRICES.**

The present wholesale prices of the materials in this market are:

French sole leather, 34 to 37½ cents per pound.

French calf, 74 cents to \$1 per pound.

French goat, colored or shagreened, 78½ cents to \$1.13½ per pound.

French kip, brown or blacked, 52½ to 70 cents per pound.

French calf, enameled, No. 1, \$21.23 per dozen.

French calf, enameled, No. 2, \$18.33½ per dozen.

French calf, enameled, No. 3, \$15.44 per dozen.

A comparison of these prices with the present values in America, adding cost of transport and the duty of 6½ cents per pound on enameled leather and 4½ cents per pound on all other grades, will readily

show whether this market offers any inducement for the importation of shoe leather from the United States.

#### AMERICAN LEATHER.

In the foregoing table of imports it appears that less than two thousand pounds of leather were received at Marseilles last year from the United States, and I even suspect that that small quantity consisted of tanned goat-skins originally sent from here, but returned for some commercial reason.

It may therefore be said that American leather is practically unknown in this market, and that consumers here, as a rule, have had little or no opportunity to compare its qualities with those of similar grades manufactured here or in adjacent countries.

It is the opinion, however, of persons who are entirely familiar with the subject, that except in the class of fine calf-skins for shoe manufacture, in which article the French have long held an acknowledged supremacy, the shoe and harness leathers tanned in the United States are equal in quality to the best produced here or elsewhere.

Such shoe leathers as are imported to France come mainly through the ports of Bordeaux and Havre, and I am not able to discover that any serious attempt has ever been made to introduce American leather here on any important scale.

#### LEATHER DEALERS.

Among the principal wholesale dealers in domestic and imported leathers in Marseilles are: Cheysson veuve et fils, Rue des Templiers, 40; Martin frères fils de Jean, Allées de Meilham, 9; Nicolas de Castelnaud, Rue Thomas, 16; Tempier Joseph, Rue de la Pyramide, 4; Contestin Alfred, Rue de la Republique, 50.

#### BOOTS AND SHOES.

The factory system of shoemaking has not hitherto been adopted to any important extent in Southern France. There is, in fact, no factory at Marseilles in which machinery is used, and only one in this consular district, the "Cordonnerie Générale," which has an establishment at Nîmes (about 60 miles northwest of Marseilles), in which machinery propelled by steam is used. The company has large houses here and at Bordeaux for the sale of its products, as well as a factory and warehouse at Lyons.

#### IMPORTS AND EXPORTS.

Aside from this the boots and shoes used in Southern France are made at home and by hand. The exports, which consist largely of goods from the interior and north of France, largely exceed the imports, as will appear from the subjoined exhibit of the boot and shoe trade of this port for last year:

Imports from—	General.	Duty-paid.	Exports to—	General.	Special.
	<i>Pairs.</i>	<i>Pairs.</i>		<i>Pairs.</i>	<i>Pairs.</i>
Switzerland .....	30,381	7	Algeria.....	443,981	428,961
Germany .....	4,531	297	Egypt .....	75,056	69,819
England .....	2,610	435	Mauritius .....	55,356	42,993
Turkey .....	2,319	1,520	Argentine Republic .....	34,645	4,445
Algeria.....	1,332	732	Turkey.....	29,655	25,030
Italy.....	1,272	112	Australia .....	11,579	11,462
Tunis.....	1,015	216	Réunion .....	7,582	5,368
Other countries.....	904	381	Other countries.....	840,632	761,526
<b>Total .....</b>	<b>44,364</b>	<b>3,700</b>	<b>Total .....</b>	<b>1,498,486</b>	<b>1,349,604</b>

In all this traffic the exporters of the United States have no part whatever.

The import duty on boots and shoes is as follows :

	Centa.
On boots .....per pair..	40
On half-boots (bottines).....do....	25
On low shoes .....do....	15

#### STYLES AND QUALITY.

The duties are not excessive, but the great obstacles to the importation of boots and shoes in this district are of another character. These are the willingness of the people to purchase and wear shoes of the most flimsy and inferior quality, provided they are cheap, and their unwillingness to pay for a better article a higher price than that to which they have been accustomed.

At various shoe stores in Marseilles there may be seen in large show windows from forty to sixty different styles of men's women's, and youth's shoes, all bearing the uniform price of 9 francs (\$1.73) per pair. They are of every conceivable pattern—walking shoes, buttoned and laced; gaiters, with tops of morocco and various colored cloths; low Oxford ties and slippers, in undressed calf, or imitation snake and alligator leather. All are neatly waxed and polished, all have high, narrow heels, all make a very plausible figure in the show window, but all are about equally flimsy and wretched. In two weeks an ordinary school boy will reduce a pair of these shoes to a condition requiring the services of a cobbler.

The soles are of soft, spongy, yellowish leather, often underlaid with paper, the seam connecting the top with the vamp soon gives way, and in wet weather the "counter" breaks down and permits the heel to bulge beyond the soles. These goods are the product of hand-labor in hundreds of small shops and factories throughout this district, and they form the staple foot-wear of the people, who, conservative and severely frugal in all things, cannot see why they should pay from 26 to 30 francs for one pair of good shoes when the same sum will purchase three pairs of new ones. In this, as in other articles of dress and luxury among the French working people, it is the new thing which counts.

#### SHOEMAKING.

There are in this city four hundred and ninety-five shoemakers' shops and stores, not including the numerous small dens or stalls in basement and market-places where cobblers ply their trade. Of these establishments, nine-tenths produce only the inferior work above described, and which is sold in all styles for men, women, and children, for from 15 down to 5 francs per pair, with a general average of 9 or 10 francs.

The other tenth includes a number of boot and shoe makers of really first-class excellence, whose work, if not quite equal to that of the best English or American makers, has all the essential qualities of good material, elegance of form, and durability. At these establishments, a pair of men's French calf walking shoes, either buttoned or laced, hand-sewed, and with broad, low heels, is sold, ready made, for 26 to 28 francs, or made to order for 30 francs.

But it is only a small minority of the people, including largely foreigners and natives who have lived abroad or in Paris, who appreciate



this high class of work or are willing to pay for it. The great majority, as already stated, prefer three pairs of new and cheap shoes to one pair of good shoes.

#### THE INTRODUCTION OF AMERICAN GOODS.

It follows from all this that there is a possible field here for the introduction of American boots and shoes, provided the people can be made to see and appreciate their own best interests. There is a large variety of factory-made shoes in the American market which are incomparably superior to the ordinary foot-wear of this country, and which, even with the cost of transportation and duties added, would be cheaper than the higher grades of hand-work produced here. But careful inquiry and frequent observation enforce the conclusion that it is useless to expect that American boots and shoes will be introduced and sold here to any extent by native importers.

The goods must be first made for this market, that is, designed after Parisian styles and patterns, neatly finished and polished, then brought here, exhibited, advertised, and sold, at first with the narrowest margin of profit until they are fully introduced and the people become convinced that they are really better for equivalent prices than their home-made work.

The first great obstacle to be overcome in introducing any foreign product in this country is to convince Frenchmen that anything whatever can be done as well elsewhere as in France.

Until within recent years the national self-content in this respect has been almost impregnable, but it is now generally conceded that in some things, notably the invention and use of machinery, the Americans are pre-eminent. If, therefore, a well assorted stock of American factory-made shoes, neatly finished, with high, narrow French heels, could be permanently displayed here and the business pushed, the ultimate success of the enterprise would be unquestionable, provided the business were kept in American hands, and managed with the energy and persistence characteristic of our business men in their affairs at home. Native salesmen would of course be necessary, and the establishment, beginning as a retail store to introduce the goods, would soon develop a jobbing trade, as their merits became known. Such an enterprise would require time, effort, and capital, but it is the only plan that would guarantee success.

The people of Southern France are not readily expert in the use of machinery. Labor is cheap and plentiful, water-power scarce, and steam expensive by reason of the costliness of fuel. The shoe-factory machine system is not likely to become general here as long as a pair of men's gaiters can be made by hand and sold at a profit for 9 francs.

There is to be added to this the general and natural sentiment among business men that in the present commercial and industrial condition of France, home production should be fostered and the importation of foreign manufactured goods restricted by all legitimate means. An article of such universal use as shoes, the cost of which consists so largely of wages paid for labor, should be sought, they say, only at home, for reasons of national economy.

FRANK H. MASON,  
*Consul.*

UNITED STATES CONSULATE,  
*Marseilles, May 19, 1885.*

## BORDEAUX.

*REPORT OF CONSUL ROOSEVELT.*

## HIDES.

The tanning industry of Bordeaux has not an importance proportionate to the quantity of hides that annually comes directly to the port. The tanneries have in the past few years decreased in number until there now remain but three. The cause of the discontinuance of many of the tanneries does not clearly appear. In consequence of the decrease in this special industry, a large percentage of the raw hides brought in are re-exported (some to the United States). A large quantity is sold to the tanneries in the adjoining departments, and is subsequently put upon this market at the following prices: Sole leather, 28½ to 38½ cents per pound, according to quality; and uppers, from \$1.15½ to \$1.44½ per pound, according to quality. Many of the hides and skins are obtained from the slaughter-houses of the city and neighboring towns, but the most considerable portion are obtained from Buenos Ayres, Montevideo, and other South American ports.

## TANNING MATERIALS.

In this district the materials used in tanning are confined to the bark and juice of the oak and chestnut trees. The employment of the juice is used as a matter of economy to save the expense of freight. The use of the bark is preferred, the result being more satisfactory. These barks are obtained chiefly from the department of the Dordogne and adjacent departments.

## LEATHER.

As I have before stated, the quantity of leather manufactured in this department (department of the Gironde) is comparatively small, being estimated at 1,000,000 francs, or \$193,000, per annum. The quantity being insufficient for home consumption, wholesale dealers are compelled to seek other markets, going to Paris, Poitiers, Tours, and Chateaufort to supply the deficit.

As there are no importations from the United States, I have no means of comparing or forming an opinion upon the relative value of American leather on this market, or of the estimation placed upon it. One or two manufacturers, professing to know the American leather, said that, owing to the quick process employed in the United States, the leather was imperfectly tanned, and the same fault is found with the English leather. In France two years are allowed in tanning the hides, and from this fact a superiority is claimed for the French tanned hides and skins. They further assert that the American leather, besides being improperly tanned, is afterwards marked with a hot iron, which also depreciates the value, and aids in deteriorating the quality.

The best means for the successful introduction of American leather is through the establishing of an agency conducted by an American expert fully understanding the value of attractive exhibition and generous advertising. In seeking a market here for American leather the competing price is the first consideration. I am informed that leather from England and Belgium can be put down and sold here at a rate of 5 cents less per pound than the domestic article.

Notwithstanding this discriminating fact, the importations, as will be seen by Table No. 1, are comparatively light, plainly indicating the difficulty that American manufacturers must be prepared to meet. In addition to prices, the quality must be such that it may successfully compete with the home-made article. Compliance with these suggestions, especially that of establishing their own agencies, are the surest and best means of introducing American leather.

#### LEATHER DEALERS.

There are no firms here that import or handle American leather. I submit the names of several responsible leather dealers: A. Lopez et Fils, 8 Rue de la Course, Bordeaux; J. Hughes, 21 Rue de l'Église St. Sernin, Bordeaux; J. Gelean, jr., & Co., 8 Place des Quinconces, Bordeaux; Babour & Co., 3 Cours du Chapeau-Rouge, Bordeaux; Mateo Petit, 9 Rue de Grossi, Bordeaux.

#### BOOTS AND SHOES.

Owing to the unsuccessful efforts of England, Belgium, and other countries to effect a positive market here, I am convinced that it will be a difficult matter for American manufacturers to successfully introduce their goods on this market. This fact is due to various causes, principally to the conservative disposition of the French, which is especially manifested by the people of the provincial towns, whose strong prejudices reject all innovations, and by an easy willingness to let well enough alone persist in shutting out the rest of the world. The extent of the factory system of shoemaking in this city is confined to four manufactories. Machinery is used, and a fairly good article is placed upon the market at a much less price than the hand-made article of same style and finish would command. The different manufacturers refuse to furnish any data whatever concerning their works, and as there is no other means of obtaining information on this subject, I am unable to satisfactorily comment on the machinery used in the several factories.

#### CUSTOM SHOEMAKING.

It is customary with nearly all classes here to employ their particular shoemaker, as hand-made shoes are more esteemed than those made by machinery. Consequently there are a great number of shoemaking shops throughout the city. Each shoemaker knows the wants and whims of his customers and studies to please their tastes and pockets. The French are proverbial as a nation of refined taste, especially in all that appertains to dress; the dressing of the feet receives full measure of attention, and when they have an established source from whence their tastes are satisfied it is quite impossible to lead them from it.

#### STYLES.

The kinds and styles of boots and shoes worn here are of great variety, depending upon the popular taste. There are boots, bottines or gaiters, low and high quartershoses, and patent leather slippers and pumps for evening wear, made of polished or varnished calf, goat, or kid skin. Ladies' shoes are generally made of fine goat-skin, dressed or undressed, and a superior quality of kid-skin. These shoes are generally of the

style known as button boots (with high and narrow heels), and the low walking-shoe and slipper.

At the present moment the English style of low, flat heels and extremely pointed toes is very much affected by both sexes. The working classes use during the summer months a kind of slipper called "espadrilles," which consists of canvas uppers and heavy soles made of rope. These are replaced in winter by heavy leather shoes with the soles well studded with nails, or more generally by the unwieldy wooden shoe (sabot). It is this latter that offers such strong opposition to the successful introduction of the American brogan. The size and shape of the French foot are more approximately like the feet of the people of the Southern States.

Prices range according to quality. Boots and shoes made to order, are as follows :

	Per pair.	
Boots .....	\$4 80 to	\$5 80
Gaiters .....	4 25	5 00
Shoes .....	2 31	3 10
Shoes (patent leather) .....	3 28	3 86
Shoes (canvas) .....	0 19	0 50
Shoes (heavy leather) .....	3 28	3 50
Shoes (wooden) .....	0 19	0 60
Pumps .....	2 31	3 10
Ladies' button boots .....	2 31	6 00
Ladies' low-quarter shoes .....	2 31	3 86
Ladies' slippers .....	0 40	1 60

The output of the manufactories is principally consumed in this and adjacent districts. The surplus, which is small, is exported, but not advantageously as the countries to which they are sent impose very high duties. Boots and shoes are imported from Austria, England, Belgium, Brazil, Spain, and Turkey. No importations appear from the United States.

#### BOOT AND SHOE DEALERS.

I submit the names of a few wholesale boot and shoe dealers: Ed. Duron, 55 Rue de la Rousselle, Bordeaux; J. T. Fourcade, Nos. 7, 9, 11, and 13, Rue Tastet, Bordeaux; Villalard et fils, 74 and 76 Rue Toirier, Bordeaux; B. Matine et fils, 48 Rue d'Alsace et Lorraine, Bordeaux; E. Sutterlin fils, 8 Cours du Jardin Public, Bordeaux.\*

#### PACKING.

Imported boots and shoes are packed in water-proof cases and casks and shipped as ordinary merchandise. It will be seen that the United States has no part in supplying this market with any of the material, crude or finished.

GEORGE W. ROOSEVELT,  
Consul.

UNITED STATES CONSULATE,  
*Bordeaux, France, June 17, 1885.*

\* The last named expresses himself agreeable to receiving samples of American shoes of superior make for which he will pay cash. The other dealers are unanimous in saying that, if they would, they could not sell American-made boots and shoes.

Imports of leather and boots and shoes at Bordeaux during the year 1884.

Countries.	Leather.	Boots and shoes.
	Pounds.	Pair.
Austria.....		5
Argentine Republic .....	120	
Belgium .....	9,321	3
Brazil .....	32	3
England .....	7,744	1,724
Germany .....	126	
Holland .....	130	
Portugal.....	822	
Russia.....	20	
Spain.....	6	40
Turkey.....		56
Total... ..	17,821	1,831

NANTES.

REPORT OF CONSUL SHACKELFORD.

LEATHER INDUSTRY.

The admirable quality of the leather manufactured in this section will always command for it a large home market. In reference to the foreign trade of the city one of the most prominent business men and largest tanners wrote me, in answer to this question :

For a long time the United States was the principal outlet for our tanned skins, which were largely exported to that country; but, after your civil war, the United States Government advanced the tariff so high on foreign manufactures, calf-skins notably being raised to 30 per cent., that it became prohibitory. Consequently the Americans attained a perfection in the manufacture of leather equal to our own, and the business is now nothing.

As this entire section of France is interested in tanning, it is impossible to give an estimate of its extent. The principal tanneries are at Rennes and this city, but most of the large villages throughout Brittany have their tanneries.

The calf-skins are obtained in the surrounding country. The importation of dried and salted hides from Mexico, New Granada, Venezuela, Guadeloupe, Réunion, England, Spain, Germany, and South America was as follows :

Years.	Tons.	Years.	Tons.
1876.....	274	1880.....	66
1877.....	138	1881.....	171
1878.....	91	1882.....	191
1879.....	270	1883.....	89

The prices ranged from 48 to 54 cents per kilogram, 2.1 pounds.

OAK AND CHESTNUT BARKS.

Oak in large quantities, is supplied by the country. Hemlock is not used. Besides giving a reddish color to the leather, it comes to us so freighted with expenses that it cannot be profitably used. The skins remain in the vats one year.

The exports of dressed skins for the past eight years have averaged only 100 tons per annum, going to England, Cayenne, New Granada, Mexico, Venezuela, Martinique, Réunion, Norway, and South America. This must not be considered as the entire exportation of the consular district, as the products of Rennes, which largely exceed those of Nantes, are shipped via Havre, and a portion of the shipments go from Nantes via Bordeaux. No foreign leather has been imported during the past year, and American leather is unknown in this market.

#### INTRODUCING AMERICAN LEATHER.

Wholesale houses and dealers are unknown. Sales are made by commercial travelers direct from the manufacturers and large houses in Paris. The best means of introducing our leather will be through Paris commission houses. There is a prejudice existing against American leather, though they know nothing about it, and the outlook for business by no means encouraging. Still the effort should be made when it can be done at trifling cost. Mr. E. Lazard, United States consular agent at Angers, will receive samples. Mr. Lazard is connected with a large manufactory at Angers, employing a number of travelers, and is a good business man.

#### BOOTS AND SHOES.

The factory system of shoemaking is carried on to a very limited extent, there being but two factories in the city. The most important firm, combining tannery and shoe manufacturing, uses no machinery, and all the sewing is done by hand. The result is the loss of an export trade, sacrificed to a pet idea.

The following extract from the report of the Tribunal of Commerce for 1884 will be read with interest:

The exportation of shoes continues to decrease each year. This industry, which fifteen years ago supported more than 1,000 men in Nantes, now employs hardly 60. Two causes have produced the decrease. We have already mentioned them several times, but as it is in the power of the Government to apply to this truly disastrous situation a remedy we believe it will be well to repeat them again.

(1) Brazil and the republics of South America, which were formerly an important outlet for our production, have been closed to us during the past ten years by their increased tariff.

(2) Our colonies, which supplied themselves exclusively from our markets, have abandoned us in favor of strangers, who, owing to the deplorable management of our colonies, offer their goods on the same condition as our own. The German, the Swiss, the Americans, are our most formidable competitors, and as the price of the raw material and labor in those countries is much cheaper than with us, the contest for us is impossible. In three years, if the present system is not modified, the manufacture of shoes in Nantes for export will cease to exist. By means of conventional treaties, which benefit to-day all our competitors in Europe, our own market is crowded with products—almost always of an inferior quality, it is true, but which on account of the lower prices at which they can be offered to consumers have placed the French workman in a situation more and more precarious.

Angers is quite an important point for the shoe and leather business. The agent there writes:

The manufacture of shoes amounts to 400,000 to 500,000 pairs per annum. Sewing machines and cutting presses are used. The goods are all sold in France; none exported. Shoes from England, Austria, Belgium, and Italy are retailed in the city, purchased from Paris agents.

#### STYLES.

It is impossible to describe the different styles of shoes sold in this city. The working classes wear sabots (wooden shoes), which are sold



at an average price of 1.50 francs (30 cents) per pair; children's, from 10 to 20 cents per pair. The galoche, a wooden shoe with leather tops, is very largely worn, and is made in great variety. The cheapest cost 24 francs (\$4.80) per dozen pairs, and from that the price advances to \$3.50 per pair. The goods offered in the shops are made to be sold at low prices and are worthless. It is the custom of the Paris houses to send their old stocks to the provincial cities for sale. A store is rented for a month, and slippers, shoes, boots, &c., offered at any price they will bring. Slippers with straw soles and calico tops sell for 30 cents per pair. This trade, however, does not interfere with the sale of such goods as would be offered from our country. The shapes have invariably pointed toes; the sizes and numbers the same as in our country. The principal competitor would be Pinet, of Paris. He has a system of his own, which has resulted in building up an enormous business, not only in France, but in England. The sizes advance by one-half centimeters, not a quarter of an inch, commencing at 12 centimeters for children, and advancing to 17 centimeters. This gives twelve sizes for infants; then ten sizes for children and thirteen sizes for ladies. Of the ladies' sizes there are seven widths, marked thus: 00, 0, 1, 2, 3, 4, 5. The length, with the width, is stamped on the sole of each shoe. As there are two qualities—the first hand-made, the second machine-made—the name of the maker is stamped on each shoe; on those of the first quality correctly, on those of the second quality it is spelled backwards. The price for ladies' button boots: Firsts, 25 francs (\$5) per pair; seconds, 22 francs (\$4.40) per pair. Shoes, 20 francs (\$4) and 18 francs (\$3.60). They are admirably made and of the best material. A lady, when she finds the size that fits her, buys her boots as she does her gloves. The price for gentlemen's shoes made to order, 18 francs (\$3.60); button boots, 22 francs (\$4.40).

H. ALLSTON SHACKELFORD,  
*Consul.*

UNITED STATES CONSULATE,  
*Nantes, July 9, 1885.*

## RHEIMS.

### REPORT OF CONSUL FRISBIE.

#### LEATHER.

There is nothing of special interest or advantage to the shoe and leather trade of the United States to be reported from this district.

The manufacture of leather is an industry not yet established as a matter of commercial importance, and, with the exception of one or two small local tanneries, not worth mentioning, neither are there any wholesale leather dealers of any magnitude at Rheims. There is, however, a very large amount of leather used and consumed, as belting, &c., in the great woolen factories. It is supplied by Paris and London houses, whose traveling agents are to be frequently met with in this city, and who are sufficiently numerous and active to supply all demands, leaving no opportunity for foreign competition except through the medium of a like agency.

There are also a very large number of boot and shoe stores in Rheims established for the local trade, none of which, so far as my information teaches me, aspire to the dignity of wholesale houses. These shops, as they may be more properly called, deal largely in ready-made goods, but few of them manufacture any part of their own goods, the manufacturing being entirely on orders from local customers. These ready-made goods, and the leather used in manufacturing and in making repairs, are almost exclusively purchased from the Paris houses. As Rheims is situated within 100 miles from Paris, and has cheap and rapid communication by two railways, such purchases

are easily made as required, without inconvenience, by orders either sent by mail or given to the traveling agents, who nearly every day present themselves soliciting orders.

While Rheims is a city that exports a very large amount of her own products, principally champagne, sparkling wine, and woolen goods, but very little is imported, except such raw materials as are necessary in these two great commercial industries. In fact, the city is not favorably situated for engaging in the import trade, as it is too near Paris to be able to draw trade from surrounding places; and, being conspicuously an inland city, without a custom-house, impost duties and other necessary charges on imported goods are paid at Paris, Havre, or other port of entry.

From the foregoing statement it will be seen that there is not a favorable opening for the export leather trade of the United States at Rheims, except, possibly, through the establishment of a house for the sake of the local trade. But there would be so many inconveniences attending such an enterprise in the way of excessive taxation and other expenses, that I would not at all recommend it. In all such things Rheims can be best reached through a house established at Paris, and sending out energetic commercial agents. What is true of Rheims in this regard I think is equally true of all other provincial cities of France within a radius of easy and quick communication with Paris.

JOHN L. FRISBIE,  
*Consul.*

UNITED STATES CONSULATE,  
*Rheims, France, July 20, 1885.*

## COGNAC.

### REPORT OF CONSUL IRISH.

I have met with much difficulty in procuring desired information, from an impression that seemed to prevail among parties engaged in the trade that American importations would have a tendency to injure their business. This prejudice will hinder to some extent the introduction of American goods into this market, if it shall appear desirable to do so, but the people are likely to learn quickly the direction of their own interests when fully brought before them.

## HIDES.

There are numerous tanneries established in various parts of this district, notably at St. Leonard, Limoges, Bellac, Benevent, Issondun, Argenton, and Château du Loir. There is one also at Pons. The most important of these are at Argenton, which enjoy a somewhat extended trade. However, the most important tanneries in France, and from whence more leather is furnished to this region than from any other, are to be found at Château Renault, in the department of Indre et Loire. The market at this point is very large and enjoys a great reputation.

The skins for the use of these tanneries are obtained in a large degree from the surrounding country, but Argenton and Château Renault buy at Havre quantities of hides, raw and salted, imported from Buenos Ayres. From Marseilles are also obtained the thick hides imported from Algiers and Tunis, and goat-skins from Calcutta and the East.

Germany, Holland, and Belgium also send hides to the French markets for the use of the tanneries. The price of the dry hides varies from 2.40 to 2.80 francs per kilogram (from 21 cents to 26 cents per pound), according to their origin, quality, and conditions of dryness.

## TANNING MATERIALS.

The principal materials used in tanning are oak and chestnut bark, designated as *tan*. Chemical products are also used to some extent,

among which may be mentioned the extract of the tannin of the chestnut tree, obtained by Mr. Aimé Roch, of Périgueux (Dordogne). Also the system employed by Mr. J. Moret, of Paris, and much used by tanners and fellmongers. Products from the chestnut tree, obtained by Messrs. Etienne Compte & Co., of Lyons, are also much sought for.

#### FOREIGN LEATHERS.

The importations of hides and skins from abroad are about one-quarter of the French consumption, and are of less value, as they are not so thick.

Hides and skins from the United States are quite unknown in this consular district. If imported to France at all, they do not find their way here.

#### LEATHERS COMPARED.

It is not easy to make a comparison between American leathers and that of other countries, but the reputation is not equal with the French or Belgian. The French leather is usually very carefully prepared in the tanneries. Some tanners keep their leather in the pits for an entire year, having the impression that leather slowly prepared is of a better quality than that produced quicker by the new means of a chemical extract.

Time, which is of comparatively small consequence in this country, is reckoned a valuable adjunct in the development of values in the manufacture of leather, and this impression goes very far.

The careful pains of the French tanners extend to the preparation of all sorts of skins—oxen, calves, goats, or sheep. The value of the French leather varies from 4 to 4.50 francs per kilogram (from 36 cents to 40 cents per pound), according to quality, and with a changing market. The Belgian tanneries have a good reputation in France in preparing the South American skins, but they rely largely for their *tan* on France, Algiers, and Italy. The French rely so strongly on the quality of their own leather that the competition of other countries is difficult. Leather must be very thoroughly prepared to succeed. Some fault is found with American leather in the hot-iron marks placed on the buttocks, also in the greater uniformity in the thickness of the leather, which would seem to be scarcely a criticism.

While, therefore, it is held that, so far as experience has gone, the value of the French leather is greater than that of the United States, nevertheless, with the great competition existing among dealers in leather and the manufactures of boots and shoes, if our dealers could afford leather at prices lower than the French they would be certain of finding a market. To accomplish this end it would be well to employ agents at Havre and Bordeaux to sell their leather, as do the South American dealers in skins, and it would easily follow that a market could be found with the large French merchants.

#### LEATHER DEALERS.

The following named gentlemen or firms are leading tanners in their respective localities, with whom communication would naturally be opened: At Limoges, Messrs. Patry frères and Messrs. Rudenil and Boyer; at Château Renault, Messrs. Martin, Ernett, Bienvenu aîné, Gamba & Rocheron, veuve Jodeau, Lablée, Auguste Pettereau; at Argenton, Messrs. Marandon Auguste, Marandon fils, Juillet Bastin,

Geoffrein Giraud. At Limoges, Mr. Massin, leather dealer, would sell leather on commission, and it would be well to furnish him samples.

Angoulême would be a fit place for a depot of American leather for the department of Charente, and shoemakers of this district have signified such a desire.

#### BOOTS AND SHOES.

Within five or six years the manufacture of boots and shoes has increased in France to such an extent that all styles and shapes are provided, combined with great elegance and solidity. There seems scarcely any reason to desire any improvement in such directions. The principal manufacturers of boots and shoes are to be found in Paris, Lyons, Bordeaux, Tours, Angers, Nantes, Lemans, Blois, Fougères, Nancy, and Limoges.

All the boot and shoe factories of the principal cities use machines, which are almost entirely of American make. In some rare instances, notably Limoges, there are factories where boots and shoes for ladies are made by hand; in such cases the products are higher in price and are considered also of a better and more luxurious quality.

The kinds and styles made and worn are very numerous. Men's boots, however, are not usually made with long legs or tops except for heavy service in the fields or water. Boots are common with laces along the instep or elastics at the sides. These, like the shoes, are made either with or without projecting or fancy ends; the sole is either nailed or sewed by machines or hand, the price varying accordingly. The style is with pointed ends. The same sorts are also made for ladies, with also a greatly increased variety.

The output of the factories seem to have an extended range throughout the country, as the numerous shops for the sale of boots and shoes attest. Shoemakers who furnish on measure are gradually disappearing, people being more disposed to purchase in shops where an extended choice is at hand, and without the necessity of waiting the slow process of hand manufacture.

#### IMPORTS OF BOOTS AND SHOES.

Boots and shoes for men's wear have been imported to some extent from Vienna in Austria, and are meeting with some success. They are quite perfect in elegance and shape, but objection is made to the quality of the soles, which are said to be inferior. Germany is also supplying the French markets with felt slippers to a considerable extent, the sole either of felt or leather, as the case may be. England is exporting so very small a quantity to this country that it is scarcely worth mentioning.

Boots and shoes manufactured in the United States are quite unknown in this consulate district. Large quantities of caoutchouc came from there, but the fabrication into boots and shoes is perfected here in France.

#### INTRODUCING AMERICAN SHOES.

To introduce the products of the United States on the French market, it might be preferable for the manufacturers to select several commission merchants in Paris, who would make sale to wholesale dealers there and afterwards in the provinces, and to accomplish that purpose to send samples of all kinds and styles and shapes suited to the needs of the market. Also to offer the goods at less price than the equal of

French manufactures, which at this moment are in such great favor in kinds, shapes, and quality.

#### BOOT AND SHOE DEALERS.

At Limoges, with 80,000 inhabitants, Mr. Louis Gallano, proprietor of the most important and honorably known warehouse in the city, would take charge of the sale of boots and shoes imported from the United States if the conditions offered him were favorable.

#### PACKING.

In packing fine goods each pair of boots or shoes is put in a separate pasteboard box, the whole placed in large wooden cases or boxes.

J. E. IRISH,  
*Consul.*

UNITED STATES CONSULATE,  
*Cognac, June 20, 1885.*

### LYONS.

#### REPORT OF CONSUL PEIXOTTO.

#### THE LEATHER INDUSTRY OF LYONS.

At Lyons and in the department under the jurisdiction of this consulate the leather industry is of very considerable importance, the amount of business transacted exceeding many millions annually.

The raw-skins are obtained from the slaughter-houses of the city of Lyons and the large towns of this region, such as St. Etienne, Valence, Grenoble, Bourg, Macon, Chalons, &c.

A certain quantity is imported from Buenos Ayres and Montevideo.

The materials used in tanning at Lyons and vicinity are oak bark and the extract of chestnuts. Garonille is also used, but in limited quantities. The leather of the more southern departments, on the contrary, are almost entirely prepared with the last material.

Oak bark is obtained from the central departments of France, viz, Allier, Nièvre, Loiret, Loir et Cher, &c. Also from the southwestern departments, Dordogne, Lot, and Lot et Garonne.

Chestnuts are supplied by the departments of the Rhone, Ardèche, and Loire.

The quantity of leather manufactured in this city and vicinity is estimated to exceed an annual production of \$6,000,000.

The output is sold and consumed in France, Spain, Italy, Switzerland, Germany, England, and North and South America. To these countries also large quantities of calf-skins are exported, leathers varying between 9 and 16 kilograms (average weight). The marks S. U. and S. V. are particularly well known and appreciated.

#### LEATHER IMPORTS.

The leathers principally imported are curried and dressed calf-skins coming from Germany, especially curried goat-skins coming from that country; the tanned goat and sheep skins of British India; also those from Algiers and the Levant.

#### AMERICAN LEATHER IN THE LYONS MARKET.

The leather imports from the United States were 66,912 from April 11 to May 11 this year, against 99,962 for the same period of 1884.

American leather is generally considered inferior to the leather of



France and other European countries, and thus far does not suit this market, a circumstance proved by statistics as well as by the replies I have personally received from manufacturers. There has been a very large falling off in imports both from the United States and South America, and this decline will continue if the defects mentioned are not remedied.

The fault found with American leather is not precisely in the leather itself, but in the processes of manufacture. It remains for too short a period in the tanning vats to become supple and pliant, so it is said. Extracts are used of poor quality, weak in body and containing acids in utter disproportion.

In pointing out these faults I believe I have sufficiently indicated the means and remedies by which the present asserted inferiority may be remedied.

#### THE BOOT AND SHOE INDUSTRY OF LYONS.

The manufacture of boots and shoes is very important both at Lyons and in the adjoining departments, the productions exceeding hundreds of millions. The factory system is not general. Two-thirds are manufactured by machinery. Hand-made, which command a high price, are sewed, while machine work is screwed and nailed. Sewed shoes are also made by machinery, the price being but little superior to nailed shoes.

#### STYLES.

All styles of boots and shoes are made at Lyons from slop-made to the very finest grades, the superior qualities varying in style and shape according to the fashion of the day. The current patterns, those most generally and popularly used, are what are called *Molierès*, the Russian shoe, the *brodequin* or laced shoe, the elastic *bottines* or side-spring boot or gaiter, the button shoe, &c.

There are also a great variety of other styles called "*fantaisie*" or fancy shoes and gaiters. Their nomenclature is far too long for enumeration. Besides, these are subject to constant change, rendering American competition almost impossible. Measures are taken by centimeter and *point*. The manufactures of Lyons are generally consumed in France; a few houses export to Algiers, Switzerland, Italy, and the Orient. Very few are exported to America. The imports of boots and shoes are principally from Switzerland and Austria; some from Belgium, but insignificant in quantity.

#### AMERICAN BOOTS AND SHOES IN LYONS.

The imports from the United States are very small. The total imports for the first quarter of 1885 were but 50,217 pairs, representing in value a little over \$80,000. In round figures the annual imports do not exceed half a million of dollars.

The reason for the limited import of American shoes in Lyons is owing to the distance and cost of importation. Another and the principal reason is the utter absence of knowledge of the wants of customers. Little or no regard has as yet been paid by our manufacturers to the requirements of French customers. The goods are cheap enough, and in this respect would easily compete with French made shoes, but they lack style and durability.

The faults found with American manufactures are: First. Quality of the leather employed or the insufficiency in preparation, its want of suppleness, its lack of elasticity, its poor treatment. Second. Want of taste and style. The poorer classes in France, even with the rich, look



for a certain style and shape. They have their notions and popular traditions and ideas which our manufacturers would have little trouble in catering to, and for which there would be a large demand, especially for our factory made shoes.

Regard, however, must be had to popular wants and prejudices, and a little study of these would lead to important results.

Agents should be sent abroad to study the wants and report upon the position of the trade.

American shoes have the reputation of being badly made. This probably may have been at one time the case, but I venture to say they are as well manufactured to-day as those of any country, but the fact must be proved and the old impression removed.

BENJAMIN F. PEIXOTTO,  
Consul.

UNITED STATES CONSULATE,  
*Lyons, France, June 10, 1885.*

### ST. ETIENNE.

Commercial Agent Theodore Hertzberg writes, under date May 14, 1885, as follows:

There are no tanneries of any extent in this district, nor is the factory system of shoe-making carried on within the limits of the district. It is mainly by the small masters of trade working either by themselves or with one or two assistants, and by a number of branch houses of some large, generally Parisian, shoe factories, that the wants of the public are supplied.

I do not think, judging from appearances, that American manufacturers will be able to build up an advantageous trade in this district.

### GERMANY.

Consul-General Frederick Raine, Berlin.  
Consul-General Jacob Mueller, Frankfort-on-the-Main.  
Consul George F. Lincoln, Aix-la-Chapelle.  
Consul J. S. Potter, Crefeld.  
Consul Albert Rhodes, Elberfeld.  
Consul Wolfgang Schoenle, Barmen.  
Consul Frank W. Ballow, Kehl.  
Consul Charles P. Kimball, Stuttgart.  
Consul William J. Black, Nuremberg.  
Consul Joseph W. Harper, Munich.  
Consul J. T. Mason, Dresden.  
Consul James T. Du Bois, Leipsic.  
Consul George F. Mosher, Sonneberg.  
Consul Henry Dithmar, Breslau.  
Consul Williams C. Fox, Brunswick.  
Vice-Consul Julius Dittmer, Stettin.  
Commercial Agent James Henry Smith, Mayence.  
Consular Agent Peter Collas, Dantzig.

### TARIFF.

#### Marks.

Hides and skins, raw (green, salted, limed, dry), for conversion into leather, unhaired .....	Free.
Leather of all kinds (excepting next item) not colored, colored Russia leather, parchment top boots .....100 kilograms..	18=\$4 28
Sole leather and Brussels and Danish glove leather, cordovan, morocco, saffian, colored leather (except as above), lacquered leather, 100 kilograms .....	36 8 46
NOTE—Half tanned, tanned not yet colored or otherwise finished sheep or goat skins .....100 kilograms..	3 71

	Marks.	
Coarse sadlers', shoemakers', strap-makers', and other coarse leather wares, also other articles of uncolored or merely black tanned leather or of raw hides .....	100 kilograms..	50= \$11 90
Fancy leather articles of cordovan, saffian, morocco, Brussels or Danish leather, of chamois and tawed leather, of colored leather, lacquered leather and parchment.....	100 kilograms..	70 16 61
Leather gloves.....	do ....	100 23 80
Bark and tanning materials.....	do ....	1 11

As an illustration of the operations of the German tariff on the importation of boots and shoes, a case may be stated thus: One pair of brogans for laborers, costing \$1.25, and weighing 2½ pounds, would pay a duty of 20 cents per pair, or, *according to value*, 16 per cent.; while one pair of fine dress or party shoes, for ladies, costing, say, \$6.25, and weighing one-half pound, would pay a duty of 4 cents per pair, or, *according to value*, about two-thirds only of 1 per cent.; showing an *ad valorem* difference in the rate of duties levied upon the two articles of about 2,500 per cent., or 25 times as much upon the brogans as upon the ladies' dress boots. (Consul Potter, Crefeld.)

The inactivity in the leather market and the prevalence of low prices prove that the expectations of the protectionist leather manufacturers were not realized; they already complain of an overproduction, and will doubtlessly soon move for an increase of duty on their commodities, laboring under the delusion that by protective duties or retaliatory tariffs all the evils of industrial competition and business depression may be remedied. (Consul-General Mueller, Frankfort-on-the-Main.)

The "Central Union of German traders engaged in the leather industry" submitted two years ago a petition to the Reichstag for "the collection of a uniform rate of duty on all kinds of leather of 36 marks (\$8.56) per 100 kilograms." But this petition was not considered by the Reichstag, the representative of the Government declaring that the Reichstag should refrain from increasing the duty, for the reason that this increase would seem to be directed against Austria, which should be spared, and not urged to take counter measures or retaliatory steps.

The German leather manufacturers felt quite disappointed at this rejection, as appears from an article in the *Deutsche Gerber Zeitung*, the organ of the German tanners. I give below some of these interesting and instructive remarks in English translation:

In the first place, we declare that we are by no means protectionists. We would be perfectly satisfied if a European customs union could be established. We are entirely able to compete with all European countries. But, on the other hand, it is necessary that a duty be imposed on all leathers imported from North and South America, the English colonies in Asia, and the Asiatic countries.

All these countries collect on imported leather a duty of from 20 to 40 per cent. *ad valorem*, cutting off all imports, but on the other hand send their surplus of leather to us to be sold at any price, which often does not even cover the cost price of the raw material. This must ruin our domestic production, as the tanner has a very costly raw product, and the manufacture of leather, as compared with other manufactures, requires months and years of work and preparation.

For these reasons the Government felt years ago the necessity of increasing the import duty on under leather from 18 to 36 marks (\$4.28 to \$8.56), while the duty of 18 marks on upper leather remained unchanged.

This difference of duty has now conduced to the evil that from the above-mentioned countries large quantities of leather at the lower rate of 18 marks are imported as upper leather, which, after undergoing a slight treatment, is to be used as under leather.

The tanners are now trying to solicit throughout the Empire subscribers to a new petition to the imperial chancellor for a uniform duty of 36 marks on all kinds of leather (except on hides and skins from goats and sheep) half dressed, also tanned, not yet colored or further dressed.

They claim that owing to the rejection of the first-mentioned petition

the German leather manufacturers suffer enormous losses. Many importers, confidently expecting an increase of the duty applied for, were induced to import large quantities of foreign leather, and now it will take a period of some length to consume the supplies imported in excess of the present demand.

Domestic tanners, taking the same view, purchased, they state, more raw hides than usual, thereby causing a rise in the price of raw material. Overproduction will be the result and the future is looked upon with despondency.

Inasmuch as for the present the removal of a double kind of import duty on leather could not be obtained, the leather manufacturers made efforts to induce the customs authority to treat the leathers imported precisely in the meaning of the tariff.

Hitherto a distinction between the leather and greased (*fettgares leder*) leather was chiefly made according to the degree of strength and stiffness.

Now, by mechanical manipulations, such kinds of leather as serve as substitutes for sole leather are made soft, and after importation again made stiff by a process of rolling, so that all requirements made of sole leather are complied with. Thus, it is stated, in recent times large quantities of ungreased tanned leather of the neck, belly, and head part, and thin "wild" leather, undressed, but prepared as soft leather, are imported in Berlin, via Hamburg, at the rate of 18 marks per 100 kilograms, though this leather mostly serves as a substitute for sole leather. In many manufactories of driving belts, belts instead of being sewed are joined together with glue, and the leather used therefor must be but very slightly greased, otherwise the glue would lose its adhesive power. If we consider that the harder the belting leather so much better suited would it be for making first-rate machine belts, it is clear that a just collection of duty upon belting leather, and not as upon sole leather, would present many difficulties.

The principal mode of distinguishing belting and patent card-leather is that it is almost exclusively imported in pieces taken from the central portion of the hides, while sole leather is imported only in half and full hides, or as parts of the head, neck, or belly. (Consul-General Raine, Berlin.)

In closing this statement I submit the following interesting items:

According to the imperial tariff laws 36 marks must be imposed upon every 100 kilograms of sole leather which is imported into the country, but it is a known fact that 36 marks is imposed upon every 100 kilograms of various leathers imported into the Empire from the United States. Every pound of American leather which has been in any way finished, such as hemlock grain leather, union bellies, and oak-tanned sides, comes, according to the decision of the custom authorities, within the meaning of the law imposing the 36-mark tax, and not a pound escapes the watchful eye of the imperial appraisers.

Several of the shoemakers' trade-unions, and particularly those of Wurtemberg, have recently petitioned the Government to raise the present tariff of 18 marks upon upper leather to 36 marks, so that there will be a tax of 36 marks upon all kinds of leather imported into the country.

One benefit to be derived from such a law would be the destruction of the present temptation to discriminate against American leather.

This new law would, however, seriously effect the Belgian and English trade, as over 3,000,000 pounds of upper leather is imported annually into the Empire from these sources. (Consul Du Bois.)



Common shoemakers' arti-	Imports ..	74	804	3	19	.....	45	908	139	453	254	244	709	.....	6	11	6	3,765	4,006
cles of undyed leather.	Exports ..	456	1,850	19	600	59	518	996	4,673	583	196	1,659	557	80	166	41	447	13,438	12,617
Common shoemakers' arti-	Imports ..	14	38	.....	13	.....	3	28	11	26	14	9	27	.....	4	1	.....	188	202
cles of other stuff.	Exports ..	101	1,635	8	31	6	19	85	99	27	418	632	663	5	11	10	46	3,838	3,951
Leather goods of cordwain,	Imports ..	44	778	6	32	.....	9	1,491	102	1,050	352	142	411	.....	6	11	1	4,448	3,527
&c.	Exports ..	1,686	17,155	5	831	221	911	1,485	1,477	1,400	1,613	4,565	11,807	203	895	1,702	1,692	48,153	46,925
Gloves of leather and leather	Imports ..	1	35	.....	25	.....	1	466	1	35	2	.....	12	.....	1	.....	.....	579	593
cut for gloves.	Exports ..	548	379	.....	8	.....	18	495	32	3	10	117	386	.....	1	435	10	2,475	2,576

Consul Fox, of Brunswick, transmits the statistics of imports and exports during the first nine months of 1885, with the returns for the corresponding period of 1884.

[In 100 kilos.]

Articles.	1885.		1884.	
	Imports.	Exports.	Imports.	Exports.
Raw calf-skins:				
Salted .....	10,706	8,692	18,796	14,688
Dried .....	12,981	5,806		
Raw ox-hides:				
Green and salted .....	85,170	17,842	145,035	25,610
Chalked and dried .....	60,390	3,984		
Raw horse-hides .....	19,119	1,458	18,574	1,714
Raw sheep, lamb, and goat skins, haired .....	21,705	11,159	28,226	9,007
Leather of all kinds, except glove leather, dyed, and sole leather .....	9,198	10,653	7,205	12,753
Brussels and Danish glove leather, dyed, and all lacquered leather .....	1,643	8,871	1,253	8,118
Sole-leather, including "vache" leather .....	4,331	1,875	4,858	3,143
Hairless, half-done, and already dressed goat and sheep skins .....	8,813	167	7,833	290
Rough leather goods .....	939	3,090	1,333	4,238
Fine leather goods, except gloves * .....	1,472	12,482	1,237	13,108
Leather gloves .....	179	784	180	750
Wood bark and tanning stuffs .....	96,522	7,978	84,115	9,320

\* Before 1885 fine oil-cloth goods were included in this item.

The average yearly import of oak bark into Germany during the last thirteen years has been 75,521 tons, at an average cost of \$34 a ton. A movement is now on foot to induce the German Government to undertake the cultivation of oak bark, particularly in Saxony and Prussia. (Consul Mosher, Sonneberg.)

In the German Empire there are 11,952 tanners and 34,540 workmen engaged in the tanning of leather, so that for every 100,000 inhabitants we find 103 persons employed in this business. The industry is of least importance in the districts of Marienwerder and Bromberg, situated in East Prussia, where only 14 persons out of every 100,000 of the inhabitants find a livelihood by tanning hides. Very small also is the proportion in Dantzig (23), Posen (24), Stettin (28), and Sigmaringen, (29). In the majority of the districts comprising the empire the average is about 150 in every 100,000; but the largest proportion is found in Hesse (475), Reuss (475), Schwarzburg-Rudolstadt (406). This is accounted for by the circumstance that in South and Middle Germany the raw and tanning materials abound, while in East Prussia the same is very scarce.

In proportion to inhabitants the following cities in the order given have the largest number of persons engaged in tanning: Munich (257 out of every 100,000), Strasburg (218), and Berlin (158). The cities of Königsberg (16) and Leipsic (21) have the smallest number. Of the 7,487 tanners located in the small cities and in the country, only 20 per cent. are engaged exclusively in tanning, the rest having additional employment in agriculture or in trade.

In Hamburg-Altona 500 workmen are employed in tanning horse-leather, the principal part of which is sent to St. Petersburg and Moscow, and there manufactured into boots and shoes. The Hamburg workmen are famous for their skill at leather-splitting, and the product of their labor is easily marketed. Much of the horse-hide used comes



from France and England. Horse-hides are also tanned at Wickroth, Odenkirchen, Potsdam, Breslau, Schandau in Wurtemberg, Brünn in Mähren, Neumunster, and Schleswig. (Consul Dubois, Leipsic).

The manufacture of leather in Germany has for some years past been undergoing a transition from hand-work to machine production, and a very large number of small establishments are suffering in many ways in consequence of this anomalous condition of the industry. The owners of the small tanneries have not capital enough to refit their establishments with modern machinery and appliances, and without them they cannot compete with the foreign product, or with the few great capitalists who manage extensive tanneries in Germany. By the use of power and machinery a few men are performing the work which heretofore kept many busy, and sooner or later the small tanneries which gave animation to so many of the rural towns in Germany will wholly disappear, leaving the business in the control of a few large establishments which can command unlimited capital.

The manufacturer of some kinds of leather, notably of calf-skins, is even now wholly monopolized by the greater tanneries, like those of Conrad Heyl and Döer & Reinhart, in Worms, and Mayer, Michel & Deniger, in Mayence. These firms employ extensively modern machinery and thousands of workmen, and have their agents in all of the great trade centers of the world. It may be mentioned, in explanation of their success, that these firms do not appear to have allowed expense to interfere with their efforts to constantly improve the quality of their manufacture. Quality first and profit second appears to have been an accepted principle in the conduct of their business, and this rule appears to have resulted in giving them, in certain specialties, the command of some of the leading markets in commercial countries. (J. S. Potter, Crefeld.)

The greater number of the German tanneries may be classified as quasi house industries, carried on in towns and villages by the respective master tanners, who perform the tanning work themselves with such help as the size of the business may require. These small manufacturers supply the demand of the master shoemakers in their vicinity, securing their custom by selling to them on credit and deferred payments, whenever required; and they, being not benefited by large capital or labor-saving machines, are neutralizing these disadvantages by their proportionate savings of wages, interests and running expenses, by their frugality, thrifty habits, and contentedness with small profits. Their productions in the aggregate are not much less than one-half of the entire leather productions of the German Empire. (Consul-General Mueller, Frankfort-on-the-Main.)

Up to about twenty years ago the German tanners, as a rule, followed the old methods and antiquated processes, which generally took over two years before raw-hides were fully prepared for the use of the shoemaker, and a good many tanning establishments had to suspend operations and become bankrupt because they were not in a position to compete with the tanners in the neighboring countries. Since that time, however, a perfect revolution has taken place in the German tanning interests, as those that survived the crisis began immediately to modernize their business, and at the present time that industry is carried on very systematically, and by the application of the best methods known to chemical science the density and durability of the hides have been much improved, while at the same time prices have declined almost in the same ratio. (Consul Schoenle, Barmen.)

## BOOTS AND SHOES.

According to the census of 1882, in the German Empire, 454,551 persons were engaged in shoemaking, making 101 shoemakers to every 10,000 inhabitants; 267,560 are styled as independent shoemakers, working for their own account, and 186,991 journeymen.

In Berlin, there are 122 shoemakers for every 10,000 inhabitants; Dresden, 151; Breslau, 148; Hamburg, 133; Königsberg, 124; Cologne, 119; Strasburg, 111; Erfurt, 140; Frankfort-on-the-Main, 122; Dantz, 120.

A shoemaker journeyman earns in Berlin about 9.15 marks; on an average 11 or 12 marks per week for ten to fourteen hours of work, inclusive of pauses; foremen, from 12 to 20 marks; average 15 marks.

The development of shoe and boot industry in Germany has of late years assumed immense proportions. According to statistical estimates, the German Empire, irrespective of shoes and boots exported, consumes annually about 140,000,000 of shoes and boots, worth about 800,000,000 of marks; but it is stated that only the fourteenth part of the production is manufactured in factories with the aid of machines. Thus the largest portion of work remains for the boot and shoe makers to do by hand. Nice boots and shoes can be manufactured by making only for normal feet. Great weight is now given by the boot and shoe makers to the question of the normal shoe, as in this country, with general liability for men to serve either in the army or navy, a large portion of the population serves for years in the infantry.

It is one of the peculiar features of the German war departments that whenever any new invention, thought to be advantageous for military purposes, is made, no effort or money is spared to secure the same for that great organization. This explains why the military authorities were the first to introduce the manufacture of boots and shoes by machinery into the army.

Dr. Starke, professor of hygiene at the Royal Prussian War Academy of Berlin, an expert of first rank in that line, in his treatise most favorably commended, "Der Naturgemasse Schuh" (The Shoe according to Nature), expressly recommends the full utilization of the mechanical means as offered by the great industry of to-day.

Ready acknowledgment is here given to the inventive power of Americans particularly in regard to machinery for shoemaking.

Starting from North America, the mechanical manufacture of boots and shoes soon gained ground in England, but not until ten years ago did it find application in Germany. In quick succession, however, grand establishments arose in this country. Erfurt, Gotha, and other cities of the Thuringian States, Frankfort-on-the-Main, Strasburg, Kassel, Mannheim, Dresden, Liegnitz, Berlin, Mayence, Pirmasens, &c., are nowadays the leading places in this industry within the German Empire, and several of these factories, perfectly organized for a careful division of labor, employ hundreds of hands.

The Berlin Board of Trade, in the publication for the year 1883, says:

The shoemaking business has by the aid of machines been enormously extended, consuming large masses of inferior sorts of leather. Sales are extensive, and have also this year been on the increase. Profit is small, however. Even the slightest advantage must be turned to profit to be able to keep pace with an enormous competition, and manufacturers are compelled continually to be on the *qui vive* for the introduction of new and improved machinery.

The small trader cannot, of course, against such odds keep pace, and business passes every day more into the hands of large manufacturers.

Foreign competition, which was still very perceptibly felt some years ago, was compelled to abandon Germany entirely. Only Vienna, with finest sorts of shoes, holds her ground. On the other hand, the boot and shoe manufacturers of Mayence and Mannheim went to foreign markets and filled considerable orders for South America and Australia. Even Holland and Belgium are buyers; France has by high rates of duty interrupted the importation of German shoes.

The extensive consumption of horse leather has also connection with this industry. While in former times tanners could make only an inferior kind of leather out of horse-hides, available only as intermediate soles, nowadays they are able to make a material for upper leather equal to calf, or fine bullock, or ox leather. It is particularly from Russia that large quantities of horse-hides are imported. (Consul-General Raine, Berlin.)

#### BOOTS AND SHOES.

The manufacture of boots and shoes has grown up in the last few years to be one of the most extensive and important industrial branches in Germany; house industry has almost outlived itself and is carried on in but few districts, especially in northern and eastern Germany. The best machines are used in the large shoemaking establishments \* and the rational and economical utilization of all mechanical powers in these factories is not surpassed in any of the European countries. The present high standard in the German shoe manufacture is largely to be attributed to a judicious division of the details and working capacities, and to a systematic adjustment of the different branches and stages in the manufacturing process. Under this rule there are manufactured in some works only shoes, of all kinds and sizes, in others, only boots; some produce only cheap and inferior articles, others turn out the finer qualities; some make only the top and covering parts to the boots and shoes, others add the bottom parts; thus the factories work more or less in specialties, and consequently are able to place on the market shoes and boots which combine nicety of detail, beauty of form, and neatness of finish, with a reasonable cheapness and certain durability. The business methods of the German shoe trade appear worthy of commendation, being simple, and resulting in materially cheapening the goods. The manufacturer generally offers his goods directly to the retail dealer, thereby avoiding the wholesale merchant.

The shoe manufacture is extensively carried on in Thuringia and Saxony, and is especially represented in the cities of Erfurt, Weissenfels, Ilmenau, Arnstadt, Eisenach, Leipsic, and adjacent towns; in the Main region, in the cities of Frankfort-on-the-Main, Mayence, Offenbach, and Schweinfurt; in Wurtemberg, in the cities of Backnang and Tuttlingen; in Westphalia, in the towns of Camen, Unna, and Dortmund; and in the Lower Rhine region, in Munich, Gladbach, Rheydt, Cleve, Kevelär, Udem, and Wachtendonk. Fine and stylish boots and shoes are made in Berlin, Frankfort-on-the-Main, Mayence, Offenbach, Pirmasens in the Rhenish Palatinate, and in Leipsic. These goods compare very favorably with the elegant and finished shoe manufactures of Vienna. In former years the Viennese shoemakers furnished the most stylish shoe wares, and German dealers were obliged to obtain their superior articles from Vienna. Within the last few years the cities named have competed sharply with Vienna, and by the high duty have almost secured the home market. On the whole, much stronger and heavier shoes and boots are in use in Germany; durability is the primary object of the German shoe ware, even in goods for women and children.

Common, heavy boots are made in Frankfort-on-the-Oder, in Brandenburg-on-the-Havel, and in some parts of Westphalia. These ordi-

\* The machines used in these factories are almost exclusively made in Germany, principally in the cities of Berlin, Leipsic, Hanover, and Frankfort-on-the-Main.

nary boots are frequently made by persons of both sexes in their own dwellings. This so-called house or cottage industry is largely carried on in East Prussia, and this kind of shoe ware is almost exclusively made for the Berlin market. The wages paid to these sporadic shoemakers are very small, and if they could not supplement their earnings by secondary employments, as wood-cutting in winter and agriculture in summer, they would hardly be able to eke out a subsistence.

In former years only a few large firms, as for instance, the renowned shoe manufacturers, Otto Herzberg & Co., at Frankfort-on-the-Main, were in a position to export, but within the last ten years the export of boots and shoes has grown to large proportions and is still increasing. The principal places to which exports are made are Central and South Americas, Australia, Belgium, France, Austria, and Russia, and recently the experiment of introducing boots of strong and good quality to some of the Western States in the United States has been attended with some success. No American goods, so far as I have been able to learn, have been imported into the provinces of Rhenish Prussia and Westphalia. Some ten years ago English shoe manufacturers attempted to secure a foothold in the German market, and succeeded to some extent. The goods they placed here were, however, not of such good quality as to successfully compete with the domestic article, and in a few years the attempt was abandoned.

Shoemakers who carry on their trade on their own account usually form so-called free guilds in cities and towns. The time of apprenticeship extends over three or four years. As a rule these apprentices have board and lodging with their masters. At the expiration of the time of apprenticeship they have to undergo a standard or probationary task. This task consists in making a pair of gentlemen's boots and a pair of ladies' gaiters, the material of which is, however, cut by the task-master. At the trade schools, which apprentices are obliged to attend, they receive instruction in anatomy as it relates especially to the feet, in drawing and modeling. The performance of a standard task for journeymen in order to become masters, is optional in nearly all parts of Germany; if a journeyman, however, applies for admission into an incorporated shoemakers' guild, he has to go through the exercises of a standard task.

The time of labor for journeymen and apprentices employed with masters is generally eleven to thirteen hours a day. The wages of such journeymen average from 16 to 20 marks (\$3.81 to \$4.76) a week. Workmen in shoe factories work from eleven to twelve hours a day, and earn from 15 to 18 marks (\$3.57 to \$4.28) a week; girls, from 7 to 9 marks (\$1.67 to \$2.15) a week. The weekly wages of workmen in tanneries average from 16 to 20 marks (\$3.81 to \$4.76), and by piece-work they are able to earn from 20 to 24 marks (\$4.67 to \$5.72). (Consul Schoenle, Barmen.)

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## BERLIN.

### *REPORT OF CONSUL-GENERAL RAINE.*

#### LEATHER.

As to the condition of the German leather industry I learn from parties and papers interested in this line of business that the bulk of the German leather trade is steadily on the increase, though not always yielding anticipated profits.

The increase of the German leather, especially in shoes and boots, ap-

pears to have been brought about at the expense of French and English trade.

Though Germany is not considered as opulent as France and England, yet it is a country full of energy and perseverance, with comparatively cheap labor, industrious artisans, and abundant raw material.

Capital has been attracted from all quarters. It is stated not to be unusual for English manufacturers to transfer their capital and raw material to Germany to take advantage of the favorable economical conditions of this country.

Prince Bismarck's protective policy, adopted since 1879, has also favored the leather industry, though German tanners and leather manufacturers, judging from the tone of the journals, desire still higher duties.

LEATHER MARKET.

No variations in price of importance took place in Berlin leathers in the year 1884. Demands were mostly steady, but of only a slight profit on account of the many competitors at home. In foreign leather the business in Berlin is stated to be but limited; only Valdivia leather was, in spite of steadily advancing prices, much in demand until the fall of 1884, when imports went down, owing to high prices.

Swiss and hemlock leathers appear in trade only as transit goods. While the former can hardly stand the competition of German manufacturers, the Berlin business in hemlock has become very dull because of competition from Hamburg, the chief market for foreign hides and leathers. A correspondent from Hamburg reports that in 1884 about 160,000 sides of hemlock, as against 123,000 in the year 1883, were imported.

English leathers, except belting leather, have scarcely been placed on the market here; but East Indian leathers, of lighter qualities, have been largely consumed in the manufacture of inferior qualities of shoes, though such leather was subject to the regular rate of duty of 36 marks.

The situation of Berlin, in the center of those districts and countries the inhabitants of which derive their main income from raising cattle, has gradually made it the chief staple place for domestic rawhides and goods.

Millions of hides are here assorted and shipped to all quarters of the globe. Of course, high rates of railroad freight encumber the trade in hides. For instance, charges for transportation from Berlin to the province of East Prussia (one of the principal sources of supply) amounted to 10 per cent. ad valorem of the articles.

Calf leather is manufactured in Alsace, in the Rhine province, and in Saxony, for which enormous supplies of raw material are obtained from Russia, via Berlin. Glazed leather is made at Berlin, Magdeburg, Munich, &c. Horse leather is chiefly manufactured at Berlin, and large quantities of the raw horse hides imported also from Russia.

According to the latest publication of the municipal trade committee, the following rates of wages were paid to journeymen per week :

Trades, &c.	Lowest.	Highest.	Average.
	Marks.	Marks.	Marks.
Tanners and leather-dressers.....	18	24	21
In horse-leather works.....	18	24	21. 5
Tanners.....	16. 5	21	19
Operatives in album factories.....	21	45	24
Saddlers.....	10	24	15
Leather article factories.....	12	30	21



WHENCE THE HIDES AND SKINS ARE OBTAINED.

As above stated, Berlin is the principal market for domestic hides. In Berlin alone there were slaughtered at the cattle yards during the twelve months of the following fiscal years—

	1881-'82.	1882-'83.	1883-'84.
	No.	No.	No.
Of oxen, cows, bullocks .....	70, 226	73, 386	93, 387
Calves .....	24, 157	24, 979	78, 220
Sheep .....	54, 221	70, 604	171, 077

At the end of 1884 the following prices were readily paid in Berlin, viz :

	Pfennigs.
For hides of bullock.....per pound *..	33
For hides of cows.....do.....	36
For hides of oxen (heavy).....do.....	40 to 42
For hides of oxen (middle).....do.....	36 to 37
For calf-hides up to 11 pounds.....do.....	62
For calf-hides of from 11 to 15 pounds.....do.....	58
For calf-hides of from 15 to 20 pounds.....do.....	52

For so-called “ wild ” hides, coming particularly from South America, Hamburg is the chief market in Germany.

At the end of 1884 the following prices were quoted for hides imported from—

Buenos Ayres and La Plata:	Pfennigs.
Dried .....per one-half kilogram..	95 to 110
Oxen (heavy) salted.....do.....	60 62
Rio Grande:	
Dried .....do.....	97 98
Oxen (heavy) salted .....do.....	58 59
Rio Janeiro, oxen salted .....do.....	51 53
West Indies and the like.....do.....	90 103
Pernambuco and the like, dry, salted.....do.....	74 80

TANNING MATERIALS.

On an average in each of the last four years the following tanuing materials were imported and exported in 100 kilograms:

Articles.	Imported.	Exported.
Wooden bark and tans.....	604, 432	44, 198
Gall-nuts and galls of quercus cerris.....	25, 398	589
Catechu .....	59, 665	11, 081
Divi-divi.....	10, 068	523
Sumac.....	54, 561	2, 774
Other materials.....	68, 242	7, 579

In 1884 wooden bark and tan were chiefly imported from Austria, France, Belgium, Netherlands; gall-nuts, from Austria and France; catechu from Great Britain, Netherlands, and British Indies and Belgium; divi-divi from Netherlands, Great Britain, France, Belgium; sumac from Austria-Hungary, Italy, France, Belgium, Netherlands; other tanning materials from France, Great Britain, Belgium, &c.

\* German, one-half kilogram.



## LEATHER MANUFACTURED, AND WHERE CONSUMED.

No statistics are kept. The output is almost exclusively consumed by the producing country itself.

## AMERICAN LEATHER COMPARED WITH THAT OF OTHER COUNTRIES.

As already stated, and as appears from the last table, Germany in all branches of leather and leather articles, except half-tanned and tanned undressed skins of goats and sheep, exports more than it imports.

Parties interested in and familiar with that line of business, whom I have consulted on the subject, differ in opinion; but all agree in stating that since the introduction of higher rates of duty, the importation of American leather has been checked. Another cause was the fact that the opinion was circulated in German papers, some years ago, that the peculiar red color of hemlock leather was prejudicial to health and that upon becoming wet the leather was difficult to dry.

While to-day tanning circles assert that the American process of quick tanning makes American leathers inferior to the German-produced, which is subjected to a very accurate and time-consuming treatment, I am informed by one of the largest Berlin dealers in hides and leathers that this view reflects but the opinion of such German tanners as dislike to do away with their old practice of tanning leather; that on the contrary, the American manner of quick tanning is extensively used even here.

It is admitted that since the introduction of the German tariff act of 1879, the inferior qualities of American leather have been cut off from the German market, but that better qualities of Valdivia, hemlock, and even upper leather, which compare favorably with the best qualities of German make, continue to appear in the market, giving the amount imported at about 2 per centum of the whole amount consumed here in Berlin.

Another dealer in leather, and an editor of a leather gazette, stated to me, in contradiction to the opinion of smaller dealers, that the finish of American leather was good, and much leather showed no loss in weight.

## INTRODUCING AMERICAN LEATHER.

I can only say, and this may apply to all branches of trade, that the information furnished by consuls can only be of a general character.

I learn here that German manufacturers and industrial parties have adopted different modes of gathering valuable knowledge about their own business. Instead of putting much money in publishing large illustrated catalogues in their own language, which other people do not understand, they have their sons or other suitable persons thoroughly trained or educated at higher trade and commercial schools, and after some years of practical experience they send them, fitted out with the knowledge of the language of the country to which they are to go, in order to personally examine the condition of their respective lines of business wherever it may be advisable or useful; and when their object has been attained, they forthwith make the acquaintance of responsible and competent persons or firms in *loco*, and try to secure them as efficient agents.

One of the Berlin dealers in leather tells me that such supplies as they may want here are promptly furnished them through their agents in New York, and that the larger American firms deal with such mat-

ters in the same style. He mentioned Julius Frank, at Frankfort-on-the-Main, as one of the American agents.

As dealers in American leather, I learn the following names: Albert Solomon, Berlin, C. Juden street, No. 28; M. I. Solomon, Berlin, C. Greni street, 5, 6.

As importer and commission agent is mentioned, Otto Günther, Berlin, O. Kloster street, 58. Terms, I am informed, are in each individual case separately agreed upon.

In conclusion I give a brief summary of extracts from the annual reports of the Berlin Board of Trade, relating to American leather, viz:

1874.—Notwithstanding the extraordinarily large supplies of tanned hemlock leather of American origin, which, for many reasons, is preferred by our dealers, and competes therefore, very perceptibly with the domestic sole and brand sole leather, still the prices for tanned as well as raw hides steadily increased during the year.

1875.—This year was one of exceptional dullness in business as compared with preceding years.

The dullness of the market in hides had a depressing effect upon the leather manufacturing interests. To this must be added the extensive foreign competition; particularly America continued to place large quantities of oak fir-tanned sole leathers on the market.

For the first time, black dressed leather from America appeared in London.

1876.—No favorable reports. From the beginning of the year unusually large quantities of American hemlock sole leather were in the European markets, especially at Hamburg and Liverpool, which were sold at continually diminishing prices. The prices at which large lots were sold, by enforced public sales, were often so low that after deduction of charges for freight, insurance, commission, &c., they did not even return prices paid for the raw hides.

From July 1, shipments of inferior hemlocks ceased entirely, and only the best qualities imported in small quantities brought adequate prices.

1877.—In American leathers trade continued to be quite brisk at times, especially in July and August, owing to the exceptional depression in prices of Valdivia leathers, such as had not yet been the case in preceding years. A very active business developed, in consequence of which domestic articles did not suffer so much as hemlock leather. Prices were quite firm, but lower than at the commencement of 1877. The following quotations per one-half kilogram were made January, 1878:

	Pfennigs.
Valdivia leather, about ..... per one-half kilogram..	135
Hemlock, heavy, good quality.....do....	120 to 126
Hemlock, middle, good quality.....do....	112 115
Hemlock, light .....do....	108

1877.—At the beginning of 1877 Valdivia leather was not at all salable.

	Pfennigs.
Hemlock, heavy, good quality ..... per one-half kilogram..	130 to 140
Hemlock, middle .....do....	120 130 to 50
Hemlock, light .....do....	110 115 50

1878.—The under-leather tanning business was in a deplorable condition, partly, without doubt, owing to American and other foreign competition. The import of American brands was in 1878 not smarter than in 1877, but the consumption of hemlock in Germany seems not to have been as extensive, while Valdivia enjoyed more and more preferred in the market, and therefore increased demands.

At the close of 1878 were paid per one-half kilogram:

	Pfennigs.
For hemlock, good, heavy quality.....	120 to 125
For hemlock, middle, good quality.....	108 112
For hemlock, light.....	100
For Valdivia, heavy .....do....	125 128

1879.—The trade in foreign leather, until shortly prior to January 1, 1880, the date upon which the new tariff took effect, was greater than heretofore.

In order to save duty, most unheard-of sales were made.

## HEMLOCK.

[Prices per one-half kilogram without duty at port.]

Time.	Condition.	Price.
		<i>Pfennigs.</i>
Close of 1878 and commencement of 1879.	Not considerable stores.	100 to 135
Midsummer, 1879	Supplies steadily increasing, very large	90 120
Fall, 1879	Slowly sinking.	95 125
Toward close of 1879	Small stores	115 140

## VALDIVIA.

Close of 1878 and commencement of 1879	Arriving supplies are very quickly disposed of...	100 to 130
Midsummer, 1879	Purchasing spirit declining	90 120
Fall, 1879	Slightly coming in again	95 125
Toward close of 1879	Much in favor, and on arrival at once disposed of.	110 140

1880.—Concerning the trade in leather and hides, a strong, steady tendency to buy was noticed only in the lighter qualities. Berlin has now a considerable market for hides of neat cattle of domestic slaughtering. The expectation that the increased rate of duty on sole leather of from 12 to 36 marks per 100 kilograms, taking effect on the 1st of January, 1880, would materially restrict the import of foreign manufactures did not prove true, at least in the case of heavy sole leather.

In hemlock business was dull, only lighter inferior qualities as substitutes for brand sole leather appeared occasionally in the market. On the whole, the supplies were much smaller than in former years.

The supplies of Valdivia at the beginning of the year were quite large; yet the largest portion of the regular supplies found ready buyers in the domestic market, of course at continually sinking prices.

Leather.	Commence- ment 1880.*	End 1880.*
	<i>Pfennigs.</i>	<i>Pfennigs.</i>
Hemlock	115 to 140	105 to 130
Valdivia	110 140	105 120

1881.—Of foreign articles, Valdivia leather took the first place, and the imports thereof were considerably larger than in 1880. Also hemlock may be mentioned (mostly for the transit trade).

Leather.	Commence- ment 1881.*	End 1881.*
	<i>Pfennigs.</i>	<i>Pfennigs.</i>
Hemlock.....per German one-half kilogram..	105 to 130	105 to 125
Valdivia.....do	105 120	102 118

\* Prices without duty at port.

1882.—Of foreign manufactures, especially during the first six months, a fair business was done in Valdivia leather; during that time quotations were so low (notwithstanding the import duty of 18 marks, or about 15 per cent. of the value) that they allowed a small profit; but later on the imports became unprofitable, in consequence of a rapid rise of the prices, especially in the fall.

In hemlock leather the business was of no consequence, the prices in New York remaining high and offering no profit for Germany.

Prices without duty at the port of entry.

Leather.	Commence- ment 1882.	Maximum.	Minimum.	End 1882.
Hemlock .....	<i>Pfennigs.</i> 108 to 124	<i>Pfennigs.</i> 110 to 130	<i>Pfennigs.</i> 100 to 125	<i>Pfennigs.</i> 105 to 120
Valdivia.....	102 to 118	*110 to 130	†95 to 115	105 to 120

\* Fall.

† Summer.

1883.—The trade in Valdivia was of some importance, inasmuch as foreign leathers are concerned. In hemlock, however, the trade was insignificant.

MACHINERY USED IN SHOEMAKING.

Besides larger machines for sewing shoes (types, McKay and Keat), some of the following types are said to be in use.

*Hawkins's cutting-machine*, for cutting sole leather in strips.

*Stowe's rolling-machine*, for removing the remainder of moisture, and for giving the leather the utmost compactness.

*Steam eccentric presses* ("Beam," "Fischer," and "Buffer" machines), for pounding soles out from the leather.

*Hawkins's slitting-machine*, for cutting small grooves for the seam in the outer side of the punched leather piece.

*Champon's wooden-tack-setting machine*.

Additional machines are used for cutting and shaping the sole edges, another for blacking and polishing same, others for smoothing, coloring, and polishing the heels, and finally, powerful rotary brush-rollers to give the shoes the last finish.

All such machines are furnished by Messrs. Larabee & Co., Frankfort-on-the-Main, and are mostly of American origin.

One of the largest shoe factories of Erfurt, owning a special establishment for making lasts, produces with the aid of machinery about 15,000 shoes per week.

For the medium sizes of boots and shoes for gentlemen, the following table, as published by the "Erfurter Schuhmacher Lehr Anstalt" (Erfurt Shoemakers' School), is interesting, length being given in each instance with a gradation of 6 millimeters, and heel with 4 millimeters gradation, length remaining same.

Length.	Heel.	Flat.	Span.	Length.	Heel.	Flat.	Span.	Length.	Heel.	Flat.	Span.
24 .....	28	18	19	26.4 ...	31.2	21.6	22.6	28.8 ...	34.4	25.2	26.2
	28.4	18.6	19.6		31.6	22.2	23.2		34.8	25.8	26.8
	28.8	19.2	20.2		32	22.8	23.8	29.4 ...	33.4	23.4	24.4
	29.2	19.8	20.8		32.4	22.4	24.4		33.8	24	25
	29.6	20.4	21.4	27 .....	31	21	22		34.2	24.6	25.6
	30	21	22		31.4	21.6	22.6		34.6	25.2	26.2
24.6 ....	28.6	18.6	19.6		31.8	22.1	23.2		35	25.8	26.8
	29	19.2	20.2		32.2	22.8	23.8		35.4	26.4	27.4
	29.4	19.8	20.8		32.6	23.4	24.4	30 .....	34	24	25
	29.8	20.4	21.4		33	24	25		34.4	24.6	25.6
	30.2	21	22	27.6 ...	31.6	21.6	22.6		34.8	25.2	26.2
	30.6	21.6	22.6		32	22.2	23.2		35.2	25.8	26.8
25.2 ....	29.2	19.2	20.2		32.4	22.8	23.8		35.6	26.4	27.4
	29.6	19.8	20.8		32.8	23.4	24.4		36	27	28
	30	20.4	21.4		33.2	24	25	30.6 ...	34.6	24.6	25.6
	30.4	21	22		33.6	24.6	25.6		35	25.2	26.2
	30.8	21.6	22.6	28.2 ...	32.2	22.2	23.2		35.4	25.8	26.8
	31.2	22.2	23.2		32.6	22.8	23.8		35.8	26.4	27.4
25.8 ....	29.8	19.8	20.8		33	23.4	24.4		36.2	27	28
	30.2	20.4	21.4		33.4	24	25		36.6	27.6	28.6
	30.6	20	22		33.8	24.6	25.6	31.2 ...	35.2	25.2	26.2
	31	21.6	22.6		34.2	25.2	26.2		35.6	25.8	26.8
	31.4	22.2	23.2	28.8 ...	32.8	22.8	23.8		36	26.6	27.4
	31.8	22.8	23.8		33.2	23.4	24.4		36.4	27	28
26.4 ....	30.4	20.4	21.4		33.6	24	25		36.8	27.6	28.6
	30.8	21	22		34	24.6	25.6		37.2	28.2	29.2

## IMPORTS.

Statistics, as published by the imperial German bureau of statistics, do not clearly show the amount of shoes imported, but the official publications gives the following figures. In the year 1884 the importations were as follows:

(a) Coarse shoemakers', &c., articles of leather, not colored, 376,500 kilograms (exported, 1,343,800 kilograms), among which were 99,800 from Austria-Hungary, 70,900 from Great Britain, 45,300 from France, 25,400 from Belgium, 24,400 from Netherlands, and 13,900 from Switzerland.

The United States appear with 1,100 kilograms only; but the fact that the ports of Hamburg, Altona, and Bremen appear with 80,400 and 7,400 kilograms, respectively, induces me to believe that these importations consist chiefly of American goods. Hamburg, Altona, and Bremen are still so-called free ports, *i. e.*, ports not embraced in the German Zollverein. Reliable statistics of the real trade of these ports are beyond reach at the present time, but the above-named ports will soon pass into the Zollverein, and then placed under the immediate control of the imperial bureau of statistics, in so far as statistics are concerned.

(b) Coarse shoemakers', &c., articles, made of gray packing linen, sail cloth, &c., imported, 18,600 kilograms; exported, 383,800 kilograms.

(c) Fancy leather articles, &c., inclusive of fine shoes of all kinds, imported, 444,800 kilograms; exported, 4,815,300 kilograms.

As importing countries, appear here—

	Kilograms.
Austria-Hungary .....	149,100
France .....	105,000
Great Britain .....	41,100
Belgium .....	35,200
Netherlands .....	14,200
Switzerland .....	10,200
Hamburg-Altona .....	77,800
Bremen .....	4,400

Among the countries which import more shoes into Germany than they receive from this country may be named Austria-Hungary, France, Belgium, and Great Britain. The difference is, however, not very considerable, as appears from statistical table already given. Those articles which appear there as exported via Bremen and Hamburg-Altona are said to have gone chiefly to Brazil, Australia, and some parts of Africa.

## AMERICAN SHOES AND BOOTS

are hardly found in the market here. Though there may be no doubt as to their superior appearance, material, and workmanship, yet the German people, on a whole, are too poor to pay the high prices asked.

A large dealer in shoes (which are chiefly imported from Vienna), whom I consulted on the subject, stated to me that it would be very difficult for American shoe manufacturers to gain ground here, as their shoes are mostly made by machinery, and, therefore, too heavy for this country. It may be possible, however, for large, responsible, and efficient manufacturers in America to compete with German shoemakers in cheapness of prices, and lightness of work, &c., if they would examine the ground, either in person or by permanent agents, skilled in her trade and familiar with the language of this country.

All German shoe manufacturers of some repute have their permanent traveling agents (well educated shoemakers by trade) employed,

with high rates of compensation, and not, as it seems, to the prejudice of the employers.

I indorse that opinion, considering the growing competition of all manufacturing countries. One of the most efficient means of Germany to extend its different trades has been, and will continue to be, to employ, even at high compensation, able and intelligent agents, thoroughly trained and skilled in their respective lines of business, understanding the language of the country to which they are sent.

#### PRICES PAID FOR SHOES.

I happen to find an offer made in newspapers by a Thuringian shoe factory, giving the following quotations, with payment in cash :

	Marks.
Boots for gentlemen, high legs, calf leather:	
First quality ..... per pair ..	9. 25
Kips ..... do ....	8. 00
Second quality ..... do ....	7. 50
Boots for workingmen, nailed ..... do ....	8. 00
Shoes for workingmen, farmers :	
Second quality ..... do ....	5. 50
First quality ..... do ....	6. 50
Boots for boys, high legs, nailed ..... do ....	4. 00 to 5. 00
Elastic boots for gentlemen :	
Calf leather ..... do ....	7. 50
In brown kips ..... do ....	6. 25
Shoes for gentlemen, elastic, buckle, or stringed ..... do ....	5. 00 to 6. 00
Shoes for waiters, elastic and stringed ..... do ....	4. 50
House shoes for gentlemen and ladies :	
Leather, heeled ..... do ....	3. 50 to 3. 80
Plush-lined, heeled ..... do ....	3. 25 to 3. 75
Latchet boots :	
For ladies ..... do ....	4. 30 to 4. 75
For girls, children ..... do ....	2. 00 to 4. 50
Buttoned boots, for girls, children, high ..... do ....	3. 00 to 6. 00
Shoes for boys, very durable, of neat's leather ..... do ....	2. 00 to 4. 50

Finally, I beg to annex here a table showing the cost price of legs when ready for being sewed, inclusive of silk and wages for out-cutter, calculated by a Berlin manufacturer, according to prices of factories :

#### *Per dozen of legs.*

Kinds.	Cutting.	Quilting.	Dressing.	Silk.	Price.
	M.	M.	M.	M.	M.
Elastic boots :					
Ordinary .....	1. 50	2. 50	2. 50	1. 50	8. 00
Trimmed .....	2. 25	3. 25	3. 25	2. 00	10. 75
Latched boots .....	2. 25	3. 25	3. 25	2. 00	10. 75
Buttoned boots .....	2. 25	3. 25	3. 25	2. 00	10. 75
Buckle boots .....	2. 00	3. 25	3. 25	2. 00	10. 50
Hunting shoes .....	1. 20	1. 75	1. 75	1. 20	5. 90
Saloon shoes .....	1. 60	2. 00	2. 00	1. 50	7. 10
Hussar boots for boys .....	1. 30	1. 60	1. 40	1. 20	5. 50
Legs for children* of four years .....					5. 00
Legs for children of eight years .....					6. 00
Legs for children of twelve years .....					7. 00

\* Prices of legs for children are understood to be for finer classes.

FREDERICK RAINE,  
*Consul-General.*

UNITED STATES CONSULATE-GENERAL,  
*Berlin, June 26, 1885.*



**RHINE PROVINCES.****AIX-LA-CHAPELLE.***REPORT OF CONSUL LINCOLN.*

There is no manufactory of boots or shoes either in this city or its vicinity, and only a few tanneries doing a small business.

Hides from which sole leather is made are imported from Antwerp and come for the greater part from South America.

The leather in use about here for "uppers" is obtained from the hides of calves and horses raised in the immediate vicinity.

The hides of the native ox are used almost exclusively in the manufacture of belting. Oak-tan obtained from trees grown about here is in common use, though I am informed that nearly all tanners have a mixture of their own, the composition of which is considered a secret of their business. Mention is made in the last report of the chamber of commerce of this city of the use of "tan extracts" in the manufacture of the cheaper grades of leather for the making of boots and shoes. This substitution of so-called "extracts" for the oak-tan is probably due to the increased cost in late years of the latter, owing to the growing of pine rather than oak trees in this neighborhood.

Early in the year 1883 the price of oak bark rose 8 per cent. after having risen 5 per cent. in price the year before.

The import of leather amounts to almost nothing, owing to the high rate of duty imposed.

One of the largest belting manufacturers here says that his experience has shown the American tanned leather to be the best.

English leather is disliked on account of its excessive weight and bad brown color, while the Belgian product is apt to crack and break in the grain. Tanners here curry also the leather and resort to many methods to increase the weight of their leather, for instance, by plunging a dry hide into hot tallow and then dumping it into a vat of cold water.

One manufacturer states that he has done well in buying leather in New York and currying it himself; that the leather was better and stood him cheaper than the native product. By the foregoing reference to American leather I understand "oak tan," and not the "American hemlock," to be intended.

This place being a factory town, and not a commercial city, there are no firms here engaged in a direct importing business. Little hope can be afforded our manufacturers of establishing direct connections with this point.

**STYLES.**

The style of foot equipment varies but little as far as my observation has extended throughout Northern Germany. The elastic side boot or gaiter is worn almost exclusively by the majority of both sexes, constituting the better classes at least. In fashion and shape the taste of the people inclines to the French rather than to the English, as shown by the high, narrow heels.

Ladies' boots are made here of excellent quality, fashion, and finish, rivaling, in fact, in some cases, the best French workmanship. On the other hand, the men's boots are to my taste coarse, ugly, ill-shaped, and uncomfortable in appearance.

Boys are provided almost universally at a very early age with boots having tops, often of fancy leather, reaching nearly to the knee.

The ordinary elastic gaiters vary in price from 7 to 16 marks; the best made ladies' button boots, of the finest materials, cost about 24 marks.

The last-mentioned style is, however, comparatively little worn, the women ordinarily seeming to prefer the gaiter.

As far as sizes are concerned in the case of men's boots and shoes, I should say they ran about as they do with us, while in the case of women larger numbers are worn on the average than in our country, reference being made, of course, to the better classes in each case.

There are no imports of boots or shoes at this place.

#### INTRODUCING GOODS.

As to how an American trade could be fostered my reply is the same as in the case of the introduction of any other of our manufactures.

It would be necessary in my opinion for the manufacturer to establish a representative, familiar not only with buying and selling, but trained in the making of the articles in question, at some business center and point of distribution.

The person selected should be necessarily one familiar with the language of the country and of such character and business capacity as would enable him to assert himself in a manner that will enforce respect and create confidence.

These qualifications are in my opinion necessary to combat existing prejudices, and to overcome the prevailing conservatism.

Such a person ought to be able to create a demand for our goods by honest straightforward dealing and perseverance. But I feel it incumbent upon me to say that doing business in this country is attended with some drawbacks, particularly to one accustomed to our ways.

For instance, here the people are accustomed to long credits, and in settlement of accounts offer in payment bills not yet due, and all manner of coupons, &c.

GEORGE F. LINCOLN,  
*Consul.*

UNITED STATES CONSULATE,  
*Aix-la-Chapelle, July 17, 1885.*

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#### CREFELD.

#### REPORT OF CONSUL POTTER.

#### HIDES AND SKINS.

The best hides for sole leather are imported from South America, and are from cattle raised upon the prairies of that country. The markets for these hides are Cologne, Antwerp, and Havre. Those imported into Germany are tanned on the Rhine and Moselle Rivers, where, on account of the hard mountain water and the rich quality of the bark there obtained, as well as on account of the prevailing cheap rates of labor in those localities, the best quality of leather, at low cost, is produced.

The second quality of upper leather is made from hides imported from alcutta and Java. The markets for these hides are in Cologne, Ham-

burg, Amsterdam, Rotterdam, and Havre. The hides of German animals are used for all other kinds of leather, and are generally purchased directly from the butcher.

The following table shows the range of prices prevailing during the year 1884:

Table showing the average prices for hides and skins of different kinds in Rhenish Prussia and Westphalia up to the beginning of the year 1885.

Hides.	Price.	Hides.	Price.
Cologne ox-hides without horns :		All other parts are of less value, and the	
Weighing 95 pounds and more .per lb..	\$0 12	price for them is.....per pound..	\$0 08
Weighing 85 to 94 pounds .....do...	10	Calf-skins :	
Weighing 74 to 84 poundsm.....do...	9	Dried skins .....per skin..	33
Dusseldorf ox-hides with horns, weighing		Dried skins of fattened calves...do...	32
95 pounds and more.....per pound..	10	Salted Rhenish skins with head :	
Upper Rhine ox-hides with horns.....do...	10	Weighing 9½ pounds.....do...	15
Thin ox-hides with horns.....do...	9	Weighing 9 to 9½ pounds .....do...	13
Cologne cow-hides without horns :		Salted Rhenish skins without head,	
Weighing 53 to 74 pounds.....do...	9	per skin .....per skin..	15
Weighing 42 to 53 pounds.....do...	9½	Sheep-skins :	
Upper Rhine cow-hides with horns ..do...	{ 7	Dried skins with wool (pelts), per	{ 13
	to	pound .....per skin..	to
	9	Dried skins without wool...perskin..	38
Damaged hides.....do...	7	Goat-skins :	
Salted hides of young cows of about twelve		Skins of she-goats .....do...	{ 34
months of age, also fresh hides without			to
horns.....per pound..	11	- .....do...	90
Cologne bull-hides without horns.....do...	8	Skins of young goats.....do...	{ 67
Dusseldorf bull-hides with horns .....do...	7		to
South German bull-hides with horns.do...	8		74
Horse-hides :			3
English ....per hide..	4 76	Summer-hare skin.....do...	{ to
Belgium.....do...	4 05		4
Dutch.....do...	4 16	Winter-hare skin.....do...	9
Luxembourg and Rhenish-Prussia,	{ 3 69	Fox-skin .....do...	80
per hide .....	to	Polecat-skin.....do...	64
	4 13		
The best part of the horse-hide is over	{ 1 78		
the rump, and the price for that part of	to		
it is .....per hide..	1 96		

MATERIALS USED FOR TANNING.

Formerly the German tanners used only the bark of their native oak. and it was on account of the excellent quality of this material that German leather obtained such a high reputation. It is, however, quite impossible, at this date, for the forests of Germany to supply the demand for bark of this description, and the deficiency is now, in part, made good by importations from Hungary, Belgium, and France. Many substitutes are also used, such as catechu, myrobalan, divi-divi, and a new material from America called "quebracho." All of these substitutes for the German oak bark are imported from London, Antwerp, and Havre.

LEATHER MANUFACTURED.

It is difficult to state, with accuracy, the quantity of leather that is manufactured in this district, as no reliable data covering the information desired are accessible, and it is doubtful if any official returns are made.

The larger part of the leather manufactured in Germany is consumed by her people and the great armies which are maintained by them. The exports to other countries are quite extensive and are, from year to year, steadily increasing. The increase is especially noticeable in the amount of manufactured leather goods which are sent out of the coun-

try. Only the finer and high cost qualities are exported, such as patent leather, morocco leather, and leather for gloves.

#### LEATHER IMPORTS.

While Germany exports a considerable amount of leather, the importation is also very important, particularly such kinds as, on account of their cheapness, are preferred by shoemakers who manufacture medium and common qualities of goods.

The American exporter of leather to Germany would be more likely to secure a satisfactory profit with high cost and "fancy" kinds (*Luxusleder*), than with the more common qualities, for the reason, among others, that the import duty is less, according to value, on fine qualities than on the heavier and cheaper kinds, which pay per pound the same duty.

#### IMPORTS FROM THE UNITED STATES.

The first importation of any magnitude from the United States was the so-called hemlock sole leather, which, on account of its cheapness and attractive appearance, found an open and quick market; but, for some reason, the consumption was early checked after the German manufacturer had tested it in the goods which he put upon the market. Soon after the importation of American leather began, the import duties were raised, and after this event the importation of American leather into this part of Germany almost wholly ceased.

At present, hemlock leather from America is only imported by Hamburg merchants, and from there it is shipped principally to Sweden, Norway, and Russia.

#### AMERICAN LEATHER COMPARED WITH MANUFACTURES OF OTHER COUNTRIES.

German tanners and German leather merchants do not hesitate to express the opinion that America will sooner or later secure the European markets for its leather "output," and, by reason of its varied advantages and ability to compete with other countries, do an extensive and remunerative business. They fully understand the peculiar facilities possessed by American manufacturers. They know that raw hides in America are cheap and abundant, and that a great variety of excellent tanning material, and in unlimited quantities, is there also easily attainable. They admit that the tanning is perfect, the drying thorough, and the finish, on account of the rationally constructed machinery used, is in every way satisfactory. They, nevertheless, insist that an expert tanner will readily observe that machine-finished leather is not so thoroughly and accurately done, nor so lasting and satisfactory as the hand-finished leather produced in European countries, where the business has been long and steadily conducted, and where the workmen are skilled by the lessons of long experience.

Some complaint is made that the American method of using water and lime in the first stages of tanning is "hasty and careless" and injurious to the leather, although its effects are only observable after the goods manufactured from it have been some time in use.

An observing and well-informed leather manufacturer, when speaking of some recent importations of leather from the United States, said: "The Americans have made great improvements in their methods of tanning and finishing leather, especially in the finer kinds, and they ap-

pear to be making earnest efforts, which are not without success, to produce goods suited to European markets. If they would study more carefully some of the specialties of our wants, they would take our markets unless the Government protected us by raising the duties still higher." He said it would be largely to the interests of American tanners if they would *crouponiren* the hides, as the English have long done; that is, cut out the most valuable part, that which covers the back and rump, &c., and treat that, and the inferior parts around the legs, &c., separately, selling the latter as a cheaper quality of leather. In that way they would suit the European market and secure a higher price for the better portions of the hide than they would with the hide in one piece.

#### MEANS FOR INTRODUCING AMERICAN LEATHER.

The best way, according to German opinion, to introduce American leather into German markets is for the exporter to communicate with firms who are perfectly familiar with the demands of the German markets, and who are, at the same time, experts in the leather business, and able to point out faults and suggest remedies therefor.

When a responsible firm in Germany has been selected to act as selling agent or representative it is desirable that he should have enough American business to absorb his entire time and attention, so that he would have no conflicting interests in hand. Such a firm could most probably represent to the advantage of the American exporter two or more manufacturers or shippers. The European agent should be allowed a generous territorial district in which to operate. It is also clearly advisable that American leather should be sold direct to German manufacturers, and dealers and middlemen severely avoided.

*Names of trustworthy agents, &c.*—I beg to present as a trustworthy firm, with whom correspondence may be had regarding the introduction of American leather into this part of Germany and the creation of a demand for the same, the name of Heinrich Zohlen Söhne, of Crefeld. This firm are manufacturers of leather and are thoroughly familiar with the wants of the German market. They have also an extensive acquaintance among the manufacturers of leather goods.

Of course the terms upon which they would consent to represent American houses can only be determined after they know what the wishes of such houses are and what kind and what amount of goods they have to offer, with prices and many other particulars.

#### AMERICAN SHOES.

The general objection in this locality to American boots and shoes is, that the sizes and shapes are "not adapted to the North German foot," and that the styles are offensive to popular tastes here. As the feet of the people of different nationalities have national characteristics as to form, the size and shape of the boots and shoes that would in a general way be regarded as "fits," and be comfortable on the feet of the people of one nation, would be misfits and uncomfortable on the feet of the people of another nation. The American exporter of boots and shoes should, to be successful, have these facts in mind, and post himself thoroughly as to the peculiar form and sizes wanted before he sends goods to foreign markets. The foot of a native of North Germany, for instance, is not so broad and is somewhat higher than the foot of a native of South Germany. This is especially true of the feet of working-



women and female servants. In South Germany it is the universal custom of females of the industrial classes to carry heavy burdens upon their heads. Perhaps this custom may have something to do with broadening and flattening the foot to a conceivable extent. Certain it is that the feet of the working classes, especially of the farming class, who are obliged to do much lifting and carry burdens, are broader and flatter than those of the non-laboring classes. An invoice of boots and shoes that would be marketable in Wurtemberg would be unmarketable in Prussia.

The people of Holland, Sweden, Norway, Denmark, and North Germany can wear the same number or size of shoe.

The feet of the English people are narrow and generally long, while the feet of the French are narrow and high, and generally not so long. Shoes that would, in an average way, suit the feet of the people of Germany, would, for reasons other than those of sentiment, be unmarketable in France. There they would be misfits and promptly rejected by the foot of a Frenchman, who would find at the toe of the shoe too much room and not enough at the instep.

SIZES.

In this part of Germany the most salable sizes of ladies' shoes range from Nos. 35 to 42 stich,\* and for gentlemen from Nos. 38 to 46 stich, inclusive.

In a dozen pairs of shoes suitable for this market the proportion of sizes should be as follows:

FOR GENTLEMEN.		FOR LADIES.	
	Stich.		Stich.
1 pair.....	No. 39	1 pair.....	No. 35
2 pairs .....	40	1 pair.....	36
2 pairs.....	41	2 pairs.....	37
3 pairs.....	42	3 pairs.....	38
2 pairs.....	43	2 pairs.....	39
1 pair.....	44	2 pairs.....	40
1 pair.....	45	1 pair.....	41
12		12	

IMPORTS OF SHOES.

A large proportion of the boots and shoes sold in this market are imported from Vienna, Bohemia, Silesia, Saxony, a few from France, and, to a limited extent, from Mayence and Frankfort. None come from the United States. A few years ago one firm imported from Boston a small invoice of ladies' shoes, which, the dealer said, "were well made and handsome, but sizes and styles were not suited to this market." No other criticism was passed upon them. It cannot be doubted that boots and shoes of American manufacture would be quite as popular in this market as those produced in any other country, provided the peculiar requirements of the foreign trade, such as those referred to, were carefully studied and complied with.

ENLARGEMENT OF AMERICAN TRADE.

The best means, however, for extending the business of a single industry, like that of leather and boot and shoes, in Germany, would be for the exporter to select an active, gentlemanly agent, well posted in

\* Three "stichs" are equal to two centimeters or eight-tenths of an inch.



the business he represents, thoroughly familiar with the German language, and diplomatic in manner and speech, and have him located in Germany with headquarters at Hamburg or Bremen. His plan should then be to visit all the prominent trade centers and study the peculiar wants and tastes of the market, and post his principals fully and minutely in relation thereto ; then, with such goods as are wanted, and only such, present himself to the trade and select first class and popular local dealers to handle and sell his goods, or to act as agents.

#### IMPORTERS OF BOOTS AND SHOES.

Christian Holler, No. 101 Rheinstrasse, in Crefeld, is a trustworthy and leading dealer in all kinds of boots and shoes, and with whom correspondence may be had relating to the introduction of American goods here.

#### SHOEMAKING AND SHOEMAKERS.

As a matter of possible interest to the American manufacturer who may wish to make comparisons as to cost of production, and other elements with which he must compete in introducing his goods into this part of Germany, I will refer to one locality where boots and shoes are wholly made by hand, and to another locality where they are made by machinery.

#### HAND-MADE SHOES.

The little town of Kevelaer, in this district, is cited as being "a town of shoemakers." It is also celebrated as the locality to which 200,000 or 300,000 ailing and religious people from Germany, Holland, and Belgium make yearly pilgrimages on foot for the purpose of seeking relief from their various ills through the instrumentality of solemn and earnest devotions in the presence of a certain image representing the Virgin Mary, which occupies a prominent position in an old and renowned church there located. In a repository near by are thousands of crutches and canes, it is said, which the pilgrims have left behind them after the stay of a day or two in this place.

By far the larger portion of the people in this ancient town are employed in making, by hand, the kind of shoe shown in Plate Nos. 11 and 12. This style of shoe has there been made in the same way, and with the same kind and pattern of tools that it is now made, from time immemorial. The article is known throughout Germany as the "Kevelaer shoe."

The wages paid and the kind and cost of rations, upon which the "average workmen" there live, are here given, as stated by the foreman or cutter in one establishment, and by an ordinary workman outside, who rents a small house and garden.

The workmen are employed by the piece, and for making men's shoes they receive 18 cents, and for women's shoes, of the same quality, 15 cents per pair. For men's high boots they receive 35½ cents per pair, and for high shoes they are paid 20 cents per pair. If a workman makes two pairs of the last-named high shoes he is regarded as having performed a good day's work.

A cutter, who receives 47½ cents per day, cuts out the leather and issues enough to keep each workman employed for one week. The latter are required to furnish the pegs, wax, and thread necessary for their work.

The price paid for leather for this kind of shoe, is, for sole leather, 45½ cents per pound, and for upper leather, 18 cents per pound. These

prices refer only to the cheaper qualities of leather which is tanned in or near Kevelaer.

The hours of labor for shoemakers in this town are as follows : In summer, from 5 o'clock a. m. to 12 o'clock m., and from 1 o'clock to 8 o'clock p. m., with a few intervening moments in the forenoon and afternoon for lunch. The daily working time during the entire year will average fully thirteen hours, and the average earnings, as stated by Johann Jacobs, and other workmen in Kevelaer, will not exceed 8 marks, or \$1.90 per week. Here, as among the hand-loom weavers near Crefeld, the garden which is connected with most of the homes of the shoemakers who have families, is their chief reliance for food. Without the contribution which this indispensable and generous little patch of nature makes to the kitchen of the shoemaker of Kevelaer, existence for him and his family would be a problem difficult of solution.

The family rations are about as follows : *Breakfast*, coffee and bread, and sometimes butter ; 11 o'clock, *lunch*, the same ; *dinner*, soup of peas, beans, or potatoes, with vegetables, and sometimes bacon ; at 4 o'clock, coffee, bread, and sometimes butter ; and for *supper*, potatoes with onion sauce, and occasionally milk soup. The average cost per week for food of this description for an adult is about 40 cents.

#### MACHINE-MADE SHOES.

*The factory system.*—For the purpose of exhibiting certain elements of cost entering into the production of machine-made boots and shoes in Germany, and enabling comparisons to be made in methods of manufacture and the cost and condition of labor in that country with those prevailing in the same industry in the United States, a series of questions were addressed to a prominent and intelligent shoe manufacturer in Gladbach, in Rhenish Prussia, and the following are his answers:

The factory system of shoemaking now extends throughout the entire Empire of Germany. It is, perhaps, more extensively carried on in Southern Germany than in other localities. There are small districts where shoes are still made quite extensively by hand, but by far the larger portion of all kinds of boots and shoes consumed in Germany are made by machinery in factories.

The machines which I use are made in Germany. Some manufacturers obtain their machines in America, but I prefer German-made machines, because they are less complicated and are cheaper. With those in use in my factory a shoe can be commenced and finished in twenty minutes.

The method of manufacture pursued in my establishment is as follows: The uppers are cut and pasted, and then stitched by machinery by women and girls in a separate department. All other work upon the uppers is performed by hand. They are then sent to the laster, in another department, who puts on the inner sole by hand work. The shoe is then finished by machinery.

The entire product of my factory is consumed in Germany. Formerly I exported a portion of it to Holland, but without profit.

The machines used in my establishment are as follows:

Stitching machines, for putting on soles; for first-class work yellow thread is used.

Sewing machines, for uppers, &c.

Machines for cutting and shaping heels.

Machines for polishing the heel.

Machines for cutting and shaping outside soles.

Machines for blackening and polishing.

Buffing machines for soles.

Machines for smoothing and polishing the soles.

The kind of shoes made in my factory embrace all varieties and prices, as follows:

Babies' shoes, without heels.....	\$0 19 to \$0 44
Children's shoes, with heels.....	51 72
Girls' shoes and boots.....	83 1 31
Ladies' boots and shoes.....	95 2 38
Gentlemen's boots and shoes.....	1 43 2 38
Men's shoes.....	1 25 1 75

The kind of leather used embraces that made from calf-skins, goat-skins, buck-skin, cow and horse hides, and kid and patent leather. Leather for first-class goods I purchase in Germany; that for coarser qualities I import from England.

The boot and shoe trade in Germany is, at the present time, in a very prosperous and promising condition. All the manufacturers appear to be busy at satisfactory prices, and their commercial standing is strong.

In Rhenish Prussia we have to compete only with Saxony and South Germany. We are pretty well protected against competition with foreign countries, especially in the lower qualities of goods, worn by the masses of the people, by the high rates of duties which are now imposed on imported boots and shoes and leather.

I know something about American leather and boots and shoes. My opinion is that American leather goods are not as durable as those of German manufacture. American hides are tanned with extracts. That process is too quick, and the leather is not as solid and tough as that tanned with our oak bark.

The size and shapes of American boots and shoes do not suit our market. They are generally too narrow.

The land used in connection with my business is valued at.....	\$9,520
The buildings occupied.....	4,760
Engines and boilers and tools, shafting, &c.....	6,902
Machinery.....	10,710
Entire plant.....	31,892

I use steam power of 36 horse-power capacity. Coal delivered at the mill costs per ton \$1.83. My annual taxes on factory plant, \$16.66. I allow for depreciation on plant 5 per cent.; and for interest on cost of plant, 4 per cent. I pay for insurance, annually, \$31.

I employ, on an average, 120 persons—70 men, 40 women, and 10 children—who receive wages as follows, per day :

Cutters.....	71 to 83 cents.
Stitchers.....	60 to 65 cents.
Pasters.....	43 to 48 cents.
Lasters.....	83 to 90 cents.
Dressers.....	83 to 90 cents.
Machinists.....	71 to 83 cents.

Average total weekly wages paid, \$335.

The area of floor surface in my factory building and store-houses, which are all one story high, is as follows:

	Square feet.
Department for dressing shoes, 42 by 15.....	630
Department for lasting shoes, 42 by 18.....	756
Department for cutting shoes, 12 by 21.....	252
Department for pasters and stitchers, 42 by 20.....	840
Engine and boiler room, 42 by 38.....	1,596
	4,074
Store-room for shafting, &c., 42 by 18.....	756
Store-room for upper leather, 12 by 21.....	252
Store-room for sole leather, 14 by 18.....	252
Store-room for boots and shoes, 42 by 42.....	1,764
	3,024

Total square feet in all buildings of floor surface..... 7,098

My weekly production of manufactured goods will average 1,800 pairs of all kinds, of an average value per pair of \$1.44, making total value of weekly production, \$2,592; average wages paid in same period, \$335.

If I can secure a return of 7 to 8 per cent. net profit on the total amount of capital invested in my business, I shall be well satisfied.

#### FACTORY WAGES, HOURS OF LABOR, AND RATIONS.

John Peter Wirtz, a representative workman in a shoe factory, said :

I am thirty-eight years of age, and have a wife and three children, the oldest thirteen and the youngest five years of age. I am shoe-dresser in a factory, and I am paid 77 cents per day for twelve hours' work. In summer we begin work at 6½ o'clock in the morning and finish at 8 o'clock in the evening, with one and a half intervening hours for meals. For breakfast we have coffee, bread, and butter, and some meat for myself. For dinner, soup, with some vegetables and pork. At 4 o'clock, coffee, bread,

and sometimes butter. Supper at 8 o'clock, salad and potatoes, with bacon sauce, and some meat.

My wife earns 94 cents per week, and I work extra hours. With our united earnings I can support my family very well, and save for the "spar casse" from \$10 to \$12 per year.

My regular yearly wages now amount to \$241.33.

I pay for—

Rent per year .....	\$32 13
Clothing for self, wife, and children .....	41 65
Food and fuel, at 44 cents per day .....	160 27
Government tax .....	72
Beer and tobacco .....	6 56
	<hr/>
	241 33

Average per day for each member of the family, 8.8 cents. My savings are from extra work. When sick I am furnished with medicine and medical attendance free of cost, the expense for which is paid from a fund contributed by my employer and a workmen's union in the factory.

Workmen whose families add nothing to their earnings do not get on as well as I do. Of course they save nothing.

At the present time business is very lively and wages are high.

J. S. POTTER,  
Consul.

UNITED STATES CONSULATE.  
*Crefeld, June 23, 1885.*

## ELBERFELD.

### REPORT OF CONSUL RHODES.

#### LEATHER.

There are eight tanneries in Elberfeld, only four of which are in operation. The hides are obtained from the Western Wald Mountains and the south of Germany, and a few from the neighborhood. The cost is as follows: Ox and cow hides 35 to 36 pfennigs per pound; the best ox hides, for making belts used in machinery, from 40 to 45 pfennigs per pound, the horns and tails being included in the weight; German horse hides, 16 to 18 marks; English horse-hides, 20 to 22 marks; these hides being exclusively used in the manufacture of shoes. Fine cow-skins are largely imported from England and France for the manufacture of fine shoes. Calf-skins are extensively tanned in Germany and exported to some extent, though not from this district. Walrus hides three-quarters of an inch in thickness are imported into Germany, principally from England, in croupions costing 3 marks a pound, and in sides costing 2 marks. It is used in polishing cutlery. The imported fine cow-hides for women's shoes cost in half croupions (10 to 18 pounds) 1½ marks a pound.

The oak bark used in tanning is principally obtained in Westphalia and the banks of the river Sieg and some of it from Hungary and France. The price of oak bark in Elberfeld is 50 to 80 marks a thousand pounds. The price of ground quebracho from South America is 70 marks per 1,000 pounds. The extracts of the same, one resembling paste costs from 50 to 56 marks per 200 pounds; the other, dry, 70 to 75 marks per 200 pounds, packing included. There are certain parts of Germany where acids are used in tanning, but in this part the old method with oak bark prevails. The fresh hides are placed in running water, not warmer than 10 degrees Reaumur, for twenty-four hours,

after which they are rinsed every twelve hours during six or eight days, at the expiration of which they are placed in a vat of lime water renewed from time to time. After fourteen days the hair is generally loosened by this treatment and is easily removed, as are also the small particles of flesh adhering to the inside. Then the hides are put into a vat of weak tan already used for a few days; they are folded neck and tail together and again side to side, making four layers, which are covered with strong tan. They remain in that state three months, when they are submitted to the greasing operation.

#### IMPORTS.

The value of the imports of leather into Elberfeld, as shown by the returns of the custom-house, were (in marks):

Description.	1882.	1883.	1884.
Sheep and goat skins, fresh and tanned, but not dyed .....	11,471	29,445	33,079
Russia leather .....	31,420	31,487	34,374
Sole leather .....	32	4,225	2,092
Brussels and Danish leather and morocco .....	4,671	6,636	3,203

#### AMERICAN LEATHER.

The opinions of a leather dealer and tanner here are to the effect that the leathers of Europe are superior to those of America, but that the latter, on account of their low price, would sell largely if the duties on the same were not onerous. An objection is made to the use of hemlock instead of oak bark. Upholstery leather of all colors is here considered superior in the United States, and the market for it might be greatly extended.

The best means for enlarging the trade in American leathers are a reduction of the present heavy duty and persistent personal efforts towards making the qualities of the American article better known. Some Germans—exceptional in their opinions, however—admit that black and colored calf-skins are of a superior quality in the United States, and that morocco there is of a like excellence. Leather tanned in the United States in the union style, *i. e.*, half hemlock and half oak bark, also has advocates, though not many.

*Importers of leather.*—Fred. Müller, 54 Nordstrasse; A. Ed. Müller, 44 Alsenstrasse; Otto Poth, 75 König-strasse; Heiren Leven, 69 Alsenstrasse.

#### BOOTS AND SHOES.

In this consular district there are no large factories, and while machinery is used the extent to which it is employed cannot be stated.

Men's boots and shoes consist principally of high and low gaiters and high boots, of ox, calf, horse, and common cow leather, the gaiters being generally manufactured by machinery. Women's shoes and boots consist principally of gaiter boots, button shoes, promenade shoes with buttons and strings, and low cut, only worn in summer. Women's shoes must have a broad sole near the ball of the foot, and in front pretty well pointed, especially in good qualities, but not so much as to hurt the toes; the heels have to be hollowed out in the middle, elegantly worked, and 4 to 5 centimeters high. In the inferior qualities lower and broader heels are made, nearly as broad as the English heels, only higher, and not as pointed in front. Men's shoes, in the better quali-



ties, are like the women's, only with wider heels, less hollowed, and not as narrow at the bottom. Many, however, prefer the English heel, broad and low, and shoes are made in this form to suit the demand.

Women's shoes are generally numbered from 35 to 42, men's from 38 to 46, and are made for the normal German foot, which is larger and lower in the instep than the American foot.

The prices of men's shoes are as follows: Common satin (spiegel rossleder), single soles, out of one piece, 84 marks a dozen wholesale, 9 or 10 marks a pair retail; calf leather, same kind of boot, 105 to 120 marks a dozen wholesale, 12 to 14 marks a pair retail; high boots of ox leather, reaching about half way to the knee, 75 to 80 marks a dozen,  $7\frac{3}{4}$  to 9 marks a pair; the same in calf leather, 108 marks a dozen, 11 to 12 marks a pair; low shoes, "Molière," laced or in elastics, horse leather, inferior quality, 60 marks a dozen wholesale, 7 marks a pair retail; calf leather, "Java," 72 to 80 marks a dozen wholesale, 9 marks a pair retail, and men's elastic, single soles, calf leather, 90 marks a dozen wholesale, 10 to 12 marks a pair retail.

Women's boots, elastics, common horse leather, 57 marks a dozen wholesale, 5 marks a pair retail; better quality, 60 marks a dozen, 6 to  $6\frac{1}{2}$  marks a pair; light ox leather, split and "gewaltz," 66 to 69 marks a dozen, 7 to  $7\frac{1}{2}$  marks a pair; calf leather, 75 to 78 marks a dozen,  $8\frac{1}{2}$  to 9 marks a pair; goat and horse leather, with heart-fashioned cut, short front pieces, glazed, 72 to 75 marks a dozen,  $7\frac{3}{4}$  to 9 marks a pair (this article is much in vogue here at the present time); glazed horse leather, with front piece of goat leather, 69 to 73 marks a dozen, 7 to 8 marks a pair; the same, glazed ox leather, with front piece of goat or ox leather, 78 to 87 marks a dozen, 8 to 9 marks a pair; calf leather, called kid, fine quality, elastics 6 inches, stitched with yellow, 96 to 102 marks a dozen, 10 to 12 marks a pair; the same with glazed points, 99 to 105 marks a dozen, 10 to 13 marks a pair; calf leather with seal front, 108 to 120 marks a dozen, 13 to 15 marks a pair. All the foregoing descriptions of boots and shoes are factory made.

#### · AMERICAN SHOES.

No imports of American shoes are received here. The American articles are of a more graceful appearance, and are of a better finish than the German, and these qualities would undoubtedly recommend them here were it not for the duty. The custom-house returns show that only 8,245 marks in ordinary and fine leather goods were imported into Elberfeld in the year 1884, and chiefly from Austria.

To familiarize the people with the superiority of the article, it is desirable that it should be of good quality, for America would find it difficult on account of the duty to compete in this market with cheap and inferior goods. Some eight or ten years ago English shoes were imported here, but the market for them was soon destroyed through inferior quality.

Julius Thoens, 24 Kipdorf, Elberfeld, is a dealer in boots and shoes willing to deal in American goods.

A shoe dealer states that shoes and boots of fine quality should be placed, each pair in a paper box, a number of these boxes being then placed in a tin case to prevent damp and wet; that ordinary boots and shoes may be put into the tin cases without being placed first in paper boxes.

ALBERT RHODES,

Consul.

UNITED STATES CONSULATE,  
*Elberfeld, June 23, 1885.*



## BARMEN.

## REPORT OF CONSUL SCHOENLE.

## LEATHER.

A great quantity of raw hides is imported from Buenos Ayres via Antwerp. These hides, much superior to the domestic, are tanned for the market in Western Germany, in the Eifel region, principally in the towns of Kyllburg and Pirm, and when finished are used for sole leather. Many hides from wild horses are also imported from South America via Hamburg, and are tanned in Holstein. Calf-skins in considerable quantities are brought from Belgium, lighter kinds from France. In former years the importation of calf-skins from France was much larger, but she has been lately almost outrun in that line by Belgium.

The United States shares in the importation of hemlock and Calcutta leathers into Germany. Of the former article the import has somewhat decreased within the last few years, as the hides were not all of a uniform good quality, and occasionally mixed goods were delivered. It is, however, conceded that the hemlock leather, although pine bark is used in the tanning process, is of a fair quality, and preferred by many shoemakers to the domestic sole leather. If the hides would be more carefully selected as to their quality and the somewhat porous thrown out, hemlock leather would not only regain the market, but its sales could be greatly increased. Calcutta leather comes next to calf-skins, and is in great demand as upper leather or vamp for heavy, strong boots and shoes.

There is at present going on among the German leather dressers a lively discussion and an earnest agitation of the question of a more extensive cultivation of the oak bark for tanning purposes, especially in the Kingdom of Saxony, for by far the greater part required for tanning has to be obtained from Hungary.

The average prices ruling in the leather market for the different kinds are as follows: For wild-horse leather 2.20 to 2.50 marks (52 to 60 cents) a pound; calf-skins, 3.50 to 4.20 marks (84 cents to \$1) a pound; neat leather, 1.60 to 1.80 marks (38 to 43 cents) a pound; vache hides (sole leather), 1.60 to 1.70 marks (28 to 40 cents) a pound; kid leather, 100 to 120 marks (\$23.80 to \$28.56) a dozen.

## BOOTS AND SHOES.

Prices for calf-skin boots made according to measure vary from 18 to 25 marks (\$4.28 to \$5.95); for horse-leather boots, from 18 to 21 marks (\$4.28 to \$5); and for neat-leather boots, from 16 to 18 marks (\$3.81 to \$4.28). Prices for ladies' gaiters are from 15 to 20 marks (\$3.57 to \$4.76), gentlemen's gaiters from 18 to 21 marks (\$4.28 to \$5), and for boys' gaiters from 12 to 18 marks (\$2.86 to \$4.28).

In spite of the high standard of shoe manufacture in Germany, I was told by some well-informed shoe dealers that American shoe manufacturers would be able to make an inroad on the German market if they would offer uniformly boots and gaiters for gentlemen as well as for ladies of a general stylishness and of a reasonable guarantee as to durability, and if they would in the first transactions content themselves with but a small margin of profit, and above all if they would employ experienced agents well acquainted with the German shoe trade and the surrounding circumstances. These agents ought to be able to speak



the German language fluently and be thoroughly familiar with the tastes and customs of those with whom they would come into contact and accommodate themselves to their way of dealing. To be sure the rather high import duty of 70 marks (\$16.66) per 100 kilograms on fine boots and shoes, might prove a stumbling block for American exporters. I have been credibly assured that this rate will probably be advanced to 100 marks (\$23.80) in the next session of the Reichstag.

WOLFGANG SCHOENLE,  
*Consul.*

UNITED STATES CONSULATE,  
*Barmen, June 25, 1885.*

## ALSACE-LORRAINE.

### REPORT OF CONSUL BALLOW.

#### TANNING.

The working and preparing the hides of animals must have been one of the first occupations of the inhabitants of Alsace-Lorraine at the period when the glaciers of Switzerland extended far into the valleys of the Vosges. But old as the tanning industry is, it has undergone fewer changes than almost any other industry. In Alsace-Lorraine it is now carried on in large and small tanneries, and the industry is now, and has for many years been, a very important and prosperous one for the province, and its progress, although gradual, has been steady. During the year 1884 there were 82 tanneries in operation; 16 of these were located at the city of Strasburg, and 16 at the city of Barr. The most extensive establishment in this district is at Strasburg; last year it gave employment to two hundred and fifty persons, worked and tanned 60,000 hides, and produced 1,600,000 pounds of leather, which had a value of about \$700,000. This tannery has 370 tanning pits. Exclusive of the tanneries, there are several establishments in Alsace where kid leather, moroccos, and beltings are made. In the production of calf leather Alsace has for a great many years enjoyed an enviable reputation, and in no section of France or Germany has this leather been produced of such good quality, and which ranked so high as the calf leather of Alsace. This result is mainly brought about through splendidly arranged tanneries, which are fitted up with all the modern appliances and machinery, making them complete in every detail, together with the fact that the Alsatian tanners have a thorough knowledge of their business, and are continually striving to maintain the reputation of Alsace in this industry. Of all the industries of this province there is none which in simple justice is so worthy of praise as the production of calf leather. There has been a gradual decrease in the exportation of this leather from this district to the United States. The cause of this decrease, as given by the tanners here, is that the tanners in the United States are producing calf leather which is equally as good, and it is consequently brought into direct competition with the Alsatian leather.

#### HIDES.

The hides worked here are largely obtained from this immediate vicinity. Hides of oxen, cows, and bulls are also received quite largely from

France, Switzerland, North and South America, and at times some are obtained from India. The hides from the slaughter-houses of Alsace-Lorraine are all tanned in the province. France furnishes many calf-skins each year. The United States export some hides to this section, but of late very few have been received. The following comparative statement will show the prices which were paid by the tanners of Strasburg and Barr in the year 1875, and the prices now being paid by them for hides in good condition per 100 pounds :

Description.	1875.	1885.
Neat skins.....	\$11 00	\$13 00
Cow-skins .....	9 66	11 20
Neat young skins.....	8 00	9 00
Calf-skins.....	17 00	\$14 00 to 16 00
Bull-skins .....	7 50	8 00
Goat-skins.....	75	80
Sheep-skins.....	60	80

TANNING MATERIALS.

The oak bark used for tanning is obtained from the forests of Alsace (Vosges) and from France. The Alsatian forests produce a fine white-oak bark, and a large quantity is received from North Germany. The fish oil is all obtained from Holland. Oak bark is generally used for tanning. At different times attempts have been made at precipitate tanning, but with poor results. Some tanners have been experimenting with a chestnut and oak bark compound, made in France, and the result has been quite satisfactory. The amount of oak bark used for tanning last year in Alsace-Lorraine was 20,000,000 pounds, which was all obtained from the forests of the province, Rhenish Prussia, and the Franche-Comté.

LEATHER PRODUCTION AND OUTPUT.

It is impossible to state the exact amount of leather tanned each year in Alsace-Lorraine. The statistics are very incomplete in this respect. However, from information which is quite reliable, I am able to say that the production of all kinds of leather last year exceeded \$4,000,000 in value. The tanners of Barr worked 520,000 calf-skins during 1884, and this number is about the yearly average. The production of sole leather is only one-third of the amount required for home consumption, and the neat leather produced each year is about one-half the amount needed for local use. Alsatian calf leather finds a ready market at home, in France, Austria, Italy, England, and the United States; of late, however, the exportation to the latter country shows a marked decrease. Those interested here claim that the unsettled condition of the leather trade is the cause of the decrease. The exportation to England is increasing from year to year, that to Austria and Italy shows no material increase.

AMERICAN LEATHER.

Owing to the fact that but very little leather made in the United States has been exported to this section not much can be said in regard to its being adapted to this market. I have conversed with parties who have received consignments of American leather which consisted of calf

and neat leather. One gentleman, who claimed to have disposed of several lots, informed me that the principal fault found with leather made in the United States was that the hides had all been branded, and in many cases several times, which invariably spoils a good-sized piece of leather, frequently in the place where the leather should be perfect, and that the workers in leather had complained very often on this account, claiming that the damaged portion was generally just where it should not be, and that there was always a good-sized piece of this defective leather. Cattle are never branded here, and very seldom marked, but when marking is necessary, a preparation is used for the purpose which is very difficult to erase, and does not injure the skin in the least. Another importer, after having stated substantially as above, further said that American leather was not properly finished for this market, that it was too greasy and also too stiff. He claimed that the grease and color came off too easily in handling, and in consequence could not be shown to such good advantage as the Alsatian leather, which does not have these defects. In regard to the stiffness, after comparing some of the American with the same kind and quality of Alsatian leather, I was not at all convinced as to the superiority of the Alsatian product, although it was true that it was a trifle more pliable than the American leather, but the difference was very slight. I am convinced that a carefully-selected consignment of calf and neat leather, chosen with a due regard for the above-claimed imperfections, would not prove a disastrous venture, and that this market can in a measure be made available by American tanners is reasonably sure. I would particularly recommend that an effort be made at placing American sole leather upon this market. As I have before mentioned, the output of the tanneries here is only about one-third of the amount annually used within the province, and the balance is obtained from France and Switzerland. Cow leather for light soles would certainly find a good sale here, provided it can be sold as cheaply as the French and Swiss leather, and I cannot see why this should not be possible. France and Switzerland, it is true, have geographical advantages, but the American leather can be sold cheaper. The situation therefore is this: Will the carrying charges allow American sole leather to be placed upon this market in competition with the French and Swiss leather? It must be borne in mind, however, that all leather intended for this market must be oak tanned. There is another branch of the leather trade which I am perfectly satisfied can be made profitable by our manufacturers in the United States. I refer to beltings and power transmitters. Alsace-Lorraine is a large workshop; its cities, towns, and villages are principally sustained by manufacturing. It is in many respects well adapted by natural advantages for manufactories, and wherever these have existed they have been improved and utilized. It is not necessary for me to enter into details regarding the factories and workshops of Alsace-Lorraine, which at a low estimate annually require \$250,000 worth of power transmitters. This want is now very nearly if not wholly supplied by the local manufacturers; and after considerable time employed in looking over the situation I unhesitatingly recommend our manufacturers to give this section some attention. I am forced to this conclusion from the fact that the local manufacturers have a decided monopoly of the business, which is neither justified by their wares nor their prices. There are but a small number of manufacturers here, and they are formed into a kind of association; that they are doing a good business is very evident. All efforts on my part to obtain any information from them have failed. The many improvements and new ideas in power transmitters, which, during the

few years have been found useful and practical in the United States, should prove to be exactly what they require here.

#### INTRODUCTION OF AMERICAN LEATHER.

Where it is practicable a personal effort, together with judicious advertising in the language of the country, is the proper course for American manufacturers to pursue who wish to make an effort to obtain a market for their productions here. I have yet to find a dealer in leather here with an avowed antipathy against American leather, and this is especially noteworthy as the dealers here have as a general thing a very decided antipathy to everything not French. All with whom I have conversed upon the subject assured me that if they could handle American leather advantageously they would do so. A correspondence on the subject between interested parties in the United States with dealers here would develop the whole subject. That, in my opinion, is the proper first step, to be followed, if so far successful, by a representative, who should be competent to explain all necessary particulars in the language of this country. Such representative could be introduced to the dealers by consuls in their districts. The more familiar I become with the energy and tact displayed by other nations in obtaining and retaining trade with Southern Germany the more I become satisfied that if the American manufacturers would make the effort to place their wares upon this market in the proper way and with a portion of the zeal and enterprise displayed by their rivals of other countries a fair measure of success would certainly reward their efforts. I would recommend those tanners in the United States who wish to make an effort to place their leather on this market to correspond with the house of Frères Weil, of Strasburg. This is an old established and reliable house, and I am authorized by them to say that correspondence from the United States would receive attention. This firm deal largely in hides and leather.

#### BOOTS AND SHOES.

Alsace-Lorraine has a population of 1,400,000 inhabitants, and starting with the supposition that each individual requires two pairs of boots or shoes each year, which, if purchased at an average price of \$2 the pair, would give as the amount expended yearly for these articles of necessity \$5,600,000. This estimate is rather under than over the amount actually expended each year for this purpose throughout the province. In the year 1884 there were five thousand two hundred boot and shoe makers in Alsace, exclusive of those given employment by the manufacturers and also those engaged in making boots and shoes in the penitentiary, of which there are generally from one hundred to one hundred and fifty employed. The largest boot and shoe factory in the province is located at Ensisheim; last year this establishment made 25,000 pairs of boots and shoes, principally shoes. Machinery is not extensively used here in the making of boots and shoes. There is but one concern which turns out strictly machine-made work, and this is not a large establishment. No wooden pegs are used; as a general thing the soles are sewed on by hand. The heels are usually screwed on by either brass or copper wire, which is formed into a screw as the machine does its work. Even the coarse shoes are largely hand made, and the fine and medium grades are invariably so. Many varieties of boots and shoes are made here, from the finest French and glove kid shoes for ladies' and children's wear, to the wooden shoes and half shoes, which are much worn by the peasants.



of the Vosges Mountains, and also more or less worn by the poorer classes in every city, town, and village throughout the province, for the reason that they are suited to their necessities and purse.

#### FASHIONS AND STYLES.

The fine boots and shoes of all styles are always the latest Parisian fashion. As soon as a new shape or style of shoe appears in Paris it is immediately reproduced by the shoemakers of Strasburg and the other large cities of the province, and the work of the Alsatian shoemakers does not suffer by comparison with the best efforts of the workmen of the French capital. It is generally remarked that in no other city of Germany can be found such a variety of shoes in styles and finish as are to be found in Strasburg. This is particularly true in regard to ladies' fine boots. The stylish shoes for ladies and children worn at present are made of French or glove kid, with a medium thick sole, made either with a very high Louis Quatorze heel or with a very low and flat one. If the shoe be for dress or indoor wear those with high heels are always worn. These heels are made of wood, covered with kid and tipped with sole leather, or of a very hard composition of rubber with sole leather fastened on the bottom; the heels of all walking shoes are made of leather. Very narrow, and in some styles extremely pointed toes are now very fashionable. If the boot be made to button, the buttons are set very closely together and the edge is straight cut. In styles for men and boys the boots and shoes are now made quite pointed at the toes, with either a high heel or a low, flat one, according to the taste of the wearer. Low shoes are generally made with flat heels; high laced or button shoes have a medium tapering heel. The soles of shoes for both ladies' and gentlemen's wear are invariably thicker here than in the United States; this applies to all kinds of boots and shoes. If the shoe be a very fine one the sole is quite heavy, but made at the edge to look thin.

#### OUTPUT OF THE FACTORIES.

The output of the Alsatian boot and shoe factories is largely marketed in the province, although Switzerland purchases quite largely of the coarser grades. They have some trade with Baden and Wurtemberg. This trade consists mainly of the medium and fine grades. Quite an extensive trade was at one time carried on with France, but lately it has fallen off considerably, although quite a number of the finest goods are marketed in Paris each year.

#### IMPORTATION OF BOOTS AND SHOES.

Many boots and shoes are imported into South Germany, particularly the medium and coarse grades. Some fine goods are received from France; Austria and North Germany furnish the coarse grades in boots and half boots. I was shown a good, substantially made boot of heavy leather, with a double sole completely studded on the bottom with large-headed nails. This kind of boot, which sells well among the working classes, is furnished the dealers here by the North German manufacturers at \$15 a dozen pairs. After diligent inquiry I can hear of no instance of American boots and shoes having been offered to the trade here. In consequence, I can form but a poor idea as to their being adapted to this market. It is possible that well and strongly made boots and shoes, which could be sold cheap enough, after paying the entrance duty,



to compete with the Austrian goods, would find a market here. It would be necessary, however, to have the sole closely resemble oak-tanned leather, or what would be more preferable would be the genuine article. American boots and shoes of the fine grades undoubtedly compare favorably with those made in Alsace, and if they can be placed upon this market as cheaply as those made here, some trade could be obtained. The Alsatian manufacturer has an advantage over the manufacturers in the United States, as he pays much smaller wages than workmen receive in the United States. The smallness of the wages paid to the workmen here is one of the reasons why machine-made goods are not more extensively manufactured. I am not acquainted with the wholesale prices of boots and shoes in the United States, and can therefore make no comparisons.

FRANK W. BALLOW,  
*Consul.*

UNITED STATES CONSULATE,  
*Kehl, July 21, 1885.*

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## HESSE.

### REPORT OF COMMERCIAL AGENT SMITH.

The leather industry is in a very advanced state in Germany, and is a large and extended branch of business. \* \* \* Certain manufacturers complain loudly of overproduction, competition, and depressed prices, especially manufacturers of fine grades of leather, who are far from being satisfied with their branch of trade.

The hides used in tanning are for the most part those of the Empire, but large numbers of South American hides are imported for conversion into sole leather. Domestic green hides cost from 40 to 50 pfennigs ( $9\frac{1}{2}$  to 12 cents) per one-half kilogram ( $1\frac{1}{16}$  lbs. avoirdupois), while South American range from 60 to 80 pfennigs ( $14\frac{2}{16}$  to 19 cents). The prices which green hides and skins command in the market are considered high, and altogether out of proportion to the prices realized for finished leather. England is one of the great sources of supply of sheepskins, which are also derived from Russia, France, and India; goat-skins, the Empire itself largely furnishes, I believe.

The principal material used in tanning is oak bark, of which about two-thirds is native and one-third foreign bark, imported from Austria, France, and Belgium. The finer sorts of leather are tanned with sumac, which comes from Sicily. At one time there was a tendency to import American sumac for this purpose, but freight and customs duties now forbid it.

### AMERICAN LEATHER.

American leather, I understand, is better tanned than the German, but does not suit the German market, because it is not so well finished as the home product. This is the principal objection to American leather, that it is poorly finished, and cannot, for this reason meet the requirements of leather dealers here. The Americans, it is said, employ too much machinery in the manufacture of leather, and seek quantity rather than quality, although the latter is, of course, not entirely lost sight of, whereas the Germans use more hand labor and are more pains-taking and slower, thus putting a better finish on their product.

The first thing requisite to the introduction of American leathers into Germany and the enlargement of trade therein here, is a study of the German market, and an endeavour to make the leather offered meet the requirements of the Germans; that is, to work the leather out better and make it in finish equal the leather of Germany, when the importation of leather from the United States would probably at once largely increase. The great drawback to the sale of American leather in this market has always been the poor finish of sole and upper leather. And I have to remark that the principal importer of leather in this vicinity, who has a branch establishment in the United States, who learned the art of tanning in the United States, and who for years was a tanner and leather dealer there, in communicating information to me on this subject, says:

You should press it strongly upon your people that in order to gain a general foothold all over this country in the sale of leather and shoes, they must come up in the finish of their stock and make it similar to that in Germany. It is acknowledged by everybody here who handles American leather that the same is superior in the tanning of better hides and in a better state of drying than German-made stock is sold, and the only fault found is the poor and careless finish of the stock which the Americans send over. All home-made leather contains about 5 or 10 per cent. of water.

Leathers prepared for shipment to foreign parts are shipped as follows: Patent leathers in zinc-lined cases; leathers containing fat are packed in oil-cloth in cases, and the ordinary leathers are laid unprotected in cases.

The latest leather quotations are as follows:

Wild sole leather (*i. e.*, leather manufactured from foreign hides, 135 to 157 Rhenish marks (\$32 to \$37), in bundles of five skins; North German, 118 to 150 marks (\$28 to \$35); domestic leather, in rolls, 136 to 160 marks (\$32 to \$38); inner sole leather, 105 to 138 marks (\$25 to \$33); German, 125 to 142 marks (\$29 to \$34) for 50 kilograms (110 pounds avoirdupois); Fahl-leder (dressing hides), 1.45 to 1.70 marks (34 to 40 cents); kip leather 1.35 to 1.70 marks (32 to 40 cents); belt leather, with waste, 1.50 to 1.65 marks (35 to 39 cents); without waste (croupons), 1.70 to 2.30 marks (40 to 54 cents); harness leather, brown, 1.50 to 1.70 marks (35 to 40 cents), black, 1.30 to 1.60 marks (33 to 38 cents) a half kilogram (1.10 pounds avoirdupois).

Hides: Rough dried domestic, neat, 85 to 88 pfennigs (20 to 21 cents); salted domestic cow hides, 42 to 43 pfennigs (about 10 cents); salted domestic bull hides, 37 to 38 pfennigs (about 9 cents); salted domestic ox hides, 44 to 45 pfennigs (about 10½ cents) a half kilogram (1.10 pounds avoirdupois); horse hides, 150 to 155 marks (\$35 to \$36) for a decher (= 10 hides); raw calf-skins 1.65 to 1.67½ marks (39 to 40 cents); raw sheep skins, 45 to 50 pfennigs (10½ to 12 cents).

The importers of leather at this city are the firms of Carl Bettelhäuser, I. Wolf, and Stiel & Co. The leading importer of American leather in this vicinity is probably John Frank, of Frankfort-on-the-Main. Mayence is quite a leather center, and one of the largest leather manufacturing firms in Germany is situated in this city, viz, Mayer, Michel & Deninger. Near them in importance is the firm of Carl Bettelhäuser, which both manufactures and imports. I. Wolf is interested in shoemaking, and has probably the largest shoe factory in Germany. He exports largely to Australasia. He is the only importer at Mayence of American hemlock leather.

I have received from Mr. C. S. Larrabee, now of Frankfort-on-the-Main, some points in the matter, which are the results of twelve years' practical experience and observation as a manufacturer of American shoe ma-

chinery, and which ought therefore to be of a very reliable character and of value to the American trade. Mr. Larrabee, I understand, was the first one to introduce American shoe machinery into Germany, in 1872, as agent of the Boston shoe manufacturers, and all the factories now existing in the Empire for the manufacture of boots and shoes are the result, directly or indirectly, of his labors. He brought over instructors to teach machine shoemaking, and their scholars have in turn taught others. Mr. Larrabee now has a large factory in Frankfort.

Mr. Larrabee in substance says there is a wide margin between the price that consumers here pay and what the goods could be produced for, but there are so many difficulties in the way of an export trade, and the risk is so great of its being cut off, either by high duties or increased knowledge of manufacturing here, that it is to be doubted if it is worth encouraging. On the other hand, I certainly think that American factories started here would pay enormous profits.

The German tanneries are and have been complaining for years of poor business and American competition, yet during this time I am not aware that any new machinery or new methods or organization have been introduced; and it is doubtful if there will be during this generation.

The quality of leather produced is of every grade, and consists of rough country-tanned sole, called wild leather, up to fine oak-tanned ox sole. Oak bark and various extracts are used in tanning. No hemlock leather is tanned here. In upper leather the productions of such tanneries as Cornelius Heyl, at Worms, Mayer, Michel & Deninger, and Carl Bettelhäuser, at Mayence, and Carl Simons Sons at Kirn, as well as others, are known almost the world over. In North Germany, Saxony, and Westphalia a great deal of horse leather is tanned into upper leather. What is known to the American trade as buff and splits is rarely finished here in that manner.

American sole leather has been imported since 1872. Formerly considerable hemlock came, but of late years none; there was such an outcry against it, on the plea that it was poor leather, combined with the high price in the States and the duty here, that it failed to compete with the cheap leather here. Some shoe factories still use American oak and union and find economy in its cutting to better advantage than the domestic, but lately the import has fallen off very materially. There is some buff brought over, but it has not yet met with much favor.

#### SHOEMAKING.

Up to thirteen years ago all shoemaking was carried on by custom shoemakers. In 1871 American machinery began to be introduced, and since then about two hundred factories have been started. At present there is one factory making 1,500 pairs; two making 750; two making 500; two or three, 400; about ten, 300; about forty, 250; about forty, 200; about thirty, 150, and about fifty making 100 pairs a day, with machinery; of these, sixty-five to seventy use steam power, the rest foot.

I estimate the consumption of Germany at about 90,000,000 pairs a year, and that but 10 per cent. of this is produced in factories. The remaining 90 per cent. is made by custom shoemakers.

The machinery employed in the factories is American in about half of them, and in the other half imitations of American machinery made by German machine manufacturers.

The absence of a good patent law before 1877, and the ignorance of American inventors as to the provisions of the present law, has opened

the door to the German machine makers, who have copied indiscriminately everything not patented in Germany.

It would be exceedingly difficult to describe the class or styles of boots and shoes made and generally worn in a manner sufficiently intelligible to be of advantage to the American exporter.

Only by procuring samples of the boots and shoes worn and comparing them with American productions could any result be obtained. The factories make boots and shoes of all grades, shapes, and sizes, for men, women, and children, and as the shape of the feet, from extreme North-east to South Germany vary considerably, no general measurement can be given. American-shaped boots and shoes could not be given away here. Two or three efforts have been made to put them on the market, but no sales could be made at any price, because the American shape does not fit the German foot.

The outputs of the factories are sold all over Germany; there are now many retail stores in each town selling hand and machine made goods.

Austria exports a good deal to Germany, probably a million and a half pairs a year.

The best way to introduce boots and shoes of American manufacture here would be for a combination of manufacturers to send over and purchase a complete line of samples, and procure the lasts and measurements of the different localities. This could be done through Mr. Larabee. Then sample goods should be made up and travelers sent over with them to take orders. As there are no jobbers of any account, the sales would have to be made direct to the retailers, and on time, as very few could be sold for cash. A general headquarters should be established, with a competent man in charge, from which deliveries and collections could be made, and great care should be exercised in giving credit, for many retailers are very "shaky." Jobbers could easily be found who would undertake the deliveries and collections and guarantee returns for a commission of about 2 per cent. Houses would have to be instructed in the trade by good travelers speaking the language sent over from America. The trade, if established, would be very large for a few years and would extend into Belgium, Holland, Scandinavia, and Russia; as soon, however, as American manufacturers undertake here the production the import would stop, for labor here is far cheaper, the same machinery is or would be available, and the materials required cheaper. All that is needed is American factory organization and knowledge of machine shoemaking, when Germany could export boots to America.

The difficulties and risks of establishing an export trade to Germany would be far greater than of establishing American factories here.

My impression is, from what I can learn, that the wholesale price is about 30 per cent. cheaper in America than for the same grade of goods here.

JAS. HENRY SMITH,  
*Commercial Agent.*

UNITED STATES COMMERCIAL AGENCY,  
*Mayence, May 23 and July 13, 1885.*

## HESSE-NASSAU.

*REPORT OF CONSUL-GENERAL MUELLER.*

## LEATHER MARKET.

Owing to universal depression in business, or, as it is claimed, to over-production, the leather trade was dull last year, and has not improved in the present one. Tanuers, manufacturers, and dealers, although holding their own, complain of small or no profits, of low prices, and slow sales of their goods; all this in spite of the duties levied to protect this branch of industry against foreign competitors. The American methods of fast tanning have, with rare exceptions, not been adopted, and the old slow process of oak-bark tanning is generally in use. Tanners and manufacturers cannot be persuaded to abandon the time-honored methods of tanning, believing that now, as heretofore, the conversion of hides into leather necessitates their being steeped an extended length of time into an infusion of oak bark in order to become thoroughly tanned, and that this time cannot be shortened, except at the expense of the quality, firmness, and durability of the leather and in some degree of its imperviousness to water.

Also, in respect to the so called tannic extracts, the opinion prevails among most tanners and leather manufacturers that by their use in place of genuine bark no good qualities of leather can be produced, and that experiments made with such extracts had proved to be a failure. It is said that tannic extracts, used as a tanning medium, make the leather brittle and short of fiber. None is used in the tanning of upper leather in the southern part of Germany, and a very limited amount in the sole tanning.

The output of the German tanneries is principally consumed at home. No heavy sole and heavy upper leather is exported. Calf leather, especially the finer grades of waxed calf-skins, half-kids and, patent calf leather, are largely exported to England and the United States.

The hides imported into Germany during 1884 amounted to 6,146,604 pounds, avoirdupois, the greater part of which came from Central and South America, the remaining from the United States, Mexico, Switzerland, Scandinavia, and France.

## PRICES.

The prices of heavy hides, imported principally from transatlantic countries, do not differ much from those exported from them to the United States, as freight and costs of transportation do not materially vary.

The average market price of raw neat hides and salted hides during 1884 was 10 cents per pound, and of calf hides, as shown by inclosed statement, 44 cents per pound, avoirdupois, according to grades.

American manufacturers, in calculating upon the prices of German hides, green or salted, obtained from butchers and dealers, should take into account that such hides contain considerable horn, flesh, &c., and because of this weigh 8 to 10 per cent. heavier than hides dressed and cured in American style.



## . IMPORTS AND EXPORTS.

	Pounds.
Export of hides .....	1, 551, 384
Imports as above.....	6, 146, 604
Excess of imports over exports .....	4, 595, 220
Export of all kinds of leather and leather goods.....	22, 983, 620
Deducting the excess of imports of hides as above .....	4, 595, 220
Leaves, in excess of exports over all imports .....	18, 388, 400

These figures make a favorable showing of the importance of the leather industries in Germany.

The fine leather goods in which the Frankfort district excels are forming the largest item of the German export in their leather industry, over ten millions of pounds, representing an approximate value of not less than \$10,000,000. A considerable portion of these goods, also of the calf-skins, japanned leather and gloves, is exported to the United States.

The other markets for these goods are principally Italy, Spain, France, and Russia.

The kinds of leather imported to this country from France consist in sheep-skins and French kid; from England, in heavy belting leather, belting offals, bellies, and sole leather; and from the United States principally in calf leather, sole leather, and upper leather made from hides. The import of this upper leather is gradually increasing and daily growing in favor with consumers, owing to the fact that it is cheaper than that of this country, and also of a finer tannage, greater evenness and thickness, and of a finer grain, particularly the buff and grain leather. Calf-skins for shoes have been imported, but are not liked because of their poor finish, dark color, and heavy stuffing.

Japanned leather in dark finish is gradually gaining more favor with the consumers, since it comes nearest to the styles prevailing and preferred in Germany, while enameled finished leather is disliked on account of its poor finish, its coarse loose grain, and its lack of firmness.

Sole leather tanned by hemlock, having in former years been in good demand, is now rarely used in the southern part of Germany. Its reddish color is looked upon as a criticism of its poor quality, leading to the inference that it is not thoroughly tanned. The prejudice against this leather was greatly increased when at one time the market was so flooded by it that it was sold at ruinous rates, thereby causing suspicion as to its worth, and arraiging the united opposition of the leather fraternity against its import. Americans residing in this country, knowing this leather of equal worth as the oak-tanned sole, have not yet succeeded in rehabilitating it in public opinion.

Two hemlock tanneries are said to exist in Northern Germany whose outputs are consumed in Northern Germany and Scandinavia.

## IMPORT OF AMERICAN OAK-TANNED SOLE LEATHER.

American oak-tanned sole leather is gradually growing in favor with dealers and is liable to be increased, provided that the American manufacturers adapt their finish to the German style and taste. Above all, the leather must be cleaned of flesh, be set, be first marked out, then rolled, have a clean, light color, and a pliable and fine grain, so as to buff well.

It is believed by competent judges that these changes and improvements being effected, the American sole leather can successfully com-



pete with that of the German market, notwithstanding the duty upon it of 36 marks per 100 kilograms, especially since it is admitted that American real tanning and perfect drying are superior to the German.

#### TANNING MATERIALS.

Oak bark is used principally for tanning purposes; only the bark obtained from young trees, thirteen to eighteen years old, is considered first class, while it is claimed that the bark from older trees has not the necessary constituents for tanning. To the use of this older bark in America is attributed the darker color of the American leather.

The inclosed statistical statements show the immense amount of oak bark used in Germany and the prices paid therefor, and although it is plentiful in Germany, nevertheless great imports of bark are made from other countries, amounting to 800,000 kilograms from Hungary alone. The average price paid for first-class tanning bark varies from \$1.75 to \$1.90 per kilogram (equal to about \$15 to \$18 per ton), showing that the American oak bark is about 33 per cent. cheaper.

In addition to catechu, divi-divi, and sumac, which are being imported in quantities as shown by the inclosed statement, a new tanning product, called quebracho, is being introduced, which is claimed to be of great value, possessing 22 per cent. of tannin. It is a tree growing in South America, the entire trunk being imported and undergoes the process of being crushed and ground preparatory to its use as tanning material. The price, in its prepared state, is from \$30 to \$32 per ton. The price of catechu is about \$100 per ton; of divi-divi \$50 per ton; of sumac, \$75 per ton.

#### MARKET FOR AMERICAN LEATHER.

The best means for the enlargement of trade in American leather will be found in the judicious choice by American manufacturers of commission merchants and dealers in the principal cities of Germany who are disposed to make a specialty of the introduction and sale of the American leathers. Such men can be found, if proper inducements are made. They should be men of intelligence and good practical sense, understanding the language and characteristics of the people and the ways of their treatment. It is to be observed that things have materially changed in Germany since it has become a united and powerful country. Consciousness and national pride have assumed the place of former indifference and despondency, caused by the division of the fatherland into numberless parts, by the despotism and oppressions of their rulers and the humiliation by their neighbors.

The awakening of commercial and industrial pride was a logical consequence of the national resurrection. The developments of home trade and home manufactures are regarded as a national duty, and in consequence thereof foreign goods have to stand a severe test before they find customers. It is moreover to be considered that the Germans are a conservative people, slow to trust and believe in things prior to their examination and trial, and that dealers introducing American leather must be regardful of and appreciate these characteristics, and in their dealings with the people be patient and trustworthy.

#### IMPORTERS.

The firm of John Frank & Co. I may designate as possessing the qualities required for the enlargement of the American leather trade in this region of Germany.

Mr. John Frank, having resided over twenty years in the United States, has, for the last twelve years here in Frankfort, carried on a highly successful trade, exclusively in American leather, representing ten to twelve of the largest American leather manufacturers.

The imports and exports of leather, &c., at Frankfort-on-the-Main in the year 1884 were as follows :

Articles.	Imports.	Exports.
Dry hides and skins..... pounds..	459, 503	391, 212
Salted hides and skins .....do....	40, 700	57, 398
Leather .....do....	399, 905	98, 120

The amount of leather of all kinds passed custom-houses of the Frankfort customs districts during the year 1884 was 839,469 pounds avoirdupois.  
Frankfort customs district consists of Frankfort-on-the-Main and the neighboring cities and towns of Bockenheim, Bornheim, Sachsenhausen, Cronberg, Homburg-von-der-Höhe, Königstein, Rödelheim, and Oberursel.

*Prices of hides, &c., during the year 1884, per 100 pounds, avoirdupois.*

Calf-hides :		
German, prime, heavy. ....	\$47 60	
German common ..... :	38 08 to 42 84	
German, light ..... :	35 70	38 08
Russian, heavy, slaughter.....	38 08	39 27
Light.....	33 32	35 70
Country ..... :	30 94	32 13
Lamb-hides, prime, per 100 skins .....	42 84	49 80

FACTORIES AND MACHINERY.

In the German Empire there about 400,000 master shoemakers, making shoes by hand, mostly to order, and the number of boots and shoes made by them may be estimated at 350,000 per day. As a rule these masters have no stores of ready-made goods connected with their business. The shoe factories in Germany, of which about sixty use steam power, do not exceed the number of two hundred and fifty, of which one or two are making upwards of 1,000 pairs per day, twenty or thirty make upwards of 300, and sixty or eighty upwards of 100 pairs a day; the rest under that amount; in all, about 40,000 per day.

These figures show that 90 per cent. of the boots and shoes manufactured in Germany are made by hand and 10 per cent. by factories or machine, while the reverse condition in that respect may be said to exist in the United States.

The machinery used is all American, copies of American, or, machines. The McKay sole-sewer is principally in use.

Pegging or wire-fastening machines are not used to a great extent, and in about twenty-five factories the complete system of American finishing has been introduced.

Most of these factories are engaged in turning out what they call a better class of work, consisting principally of men's fine congress and women's fine congress and button boots.

STYLES.

Workmen's shoes or brogans and plow-shoes are not made in these factories yet, but slippers and felt goods, for servants' wear, are turned out in large quantities. The styles and shapes here differ from our

American, in respect to the heels, which are all high, underset, and curved, and the toe is pointed; but on the whole the difference is slight and not important enough to make them on that account less saleable or the import thereof impracticable, and less stress need to be put upon this difference, inasmuch as styles and fashions of the different countries are gradually merging into one.

The main causes for the want of demand and the non-importation of American boots and shoes lie deeper. Among the German people, and especially among the ruling and wealthier classes, the opinion prevails that boots, shoes, and bodily wear generally, in order to fit and to ply to the physical stature of the individual, cannot, on account of its inability to accommodate itself to the peculiar wants, properly be made and finished by machine, and that flexibility of the workmen's mind and hand are indispensable to perform that kind of work satisfactorily. In addition thereto, it is believed that machine-made boots, shoes, and other clothing is less durable and inferior to that made by hand.

These two causes combined give rise to the prejudice against factory shoes and ready-made clothing, and to a great extent account for the small number of shoe manufacture establishments and for the limited demand of machine-made goods.

The German people are also known to be tenacious in their convictions as well as in their habits, customs (and, perhaps) prejudices, and this characteristic need be touched upon in order to further explain their reluctance in adopting modern manufacturing methods.

#### IMPORTS AND EXPORTS OF SHOES.

The statistics do not state the import and export of boots and shoes by their value, as these articles are classed with all other leather wares under a common heading; but it may be said that no boots and shoes are imported into Germany from England and the United States, and only to a small extent hand-made shoe goods from Bohemia and from well-reputed French firms.

The greater portion of the output of the German factories is consumed in Germany, and the surplus, so far as I could learn, is exported to Holland, Scandinavia, and Australia. Jobbers and wholesale shoe-dealers are hardly known, as most of the factories sell their products to the retailers directly, and their commercial travelers go all over Germany and Scandinavia to sell the fabrics and to find customers.

It is generally conceded by Americans residing in Germany that the shoe factories, although in their infancy, have made considerable progress during the last ten or fifteen years, and that their fabrics are of good style and quality, and the sooner this fact is recognized by their foreign rivals the better.

#### • AMERICAN MANUFACTURES OF LEATHER.

With a few exceptions, the German factories do not hold comparison with the American; they lack the full and complete system of machinery, the capacity, technical arrangements, and labor-saving manufacturing methods, and the advantage thereby afforded to the American manufacturer is, in my judgment, great enough to compensate the difference of wages that exist in favor of the European manufacturer and to enable him, if the prices of materials were alike, to produce his goods cheaper than his cisatlantic competitor.

It is my opinion, also, that the products of American factories, in style

and finish, compare favorably with those of German make, but as to the relative durability of the various goods I am unable to judge.

Manufacturers seeking trade here should keep in mind, however, that durability is preferred to show, elegance, and novelty of style, and that most people will first of all look upon the lasting qualities of ready-made shoes and boots they are buying, and especially upon strong and heavy soles, not liable soon to wear out.

In treating of the practicability of exporting American boots and shoes to this country, the question must necessarily be considered, whether the American manufacturer, who has to add freight and duties to the costs of his goods, is able to compete with the prices of the home manufacturer. Upon the affirmative answer to this question depends the solution of the problem, after admitting that no serious objection can be raised to the American shoe because of its style or quality.

I am of course at a loss to give valuable information on this subject, but experts in the shoe trade, whom I have consulted, have expressed the opinion that certain classes of American boots and shoes can be profitably exported and be sold cheaper than similar goods manufactured here.

The best means of introducing American trade consists in the establishment of magazines, depots, or sample rooms, at some of the important cities centrally located; in employing trusted and intelligent agents, men of experience in the manufacture and trade, men that are able to speak the German language and to observe styles, tastes, and wants of the people to be dealt with; to judge as to the class of goods wanted and advise the manufacturer as to changes or improvements desired; to give to dealers and to the public a chance to examine and buy American goods.

Such persons, experienced and energetic, will soon have succeeded to popularize American goods and to establish an American trade.

I do not believe that responsible men will be found willing to initiate and introduce the business at their own risk, and hopes to the contrary will prove delusive, nor will anything be accomplished by the sending over of price-lists, catalogues, or samples. All experiments of the latter kind have, wherever tried, failed.

In my judgment the American manufacturers will have to waken up soon if they do not wish their products cut off from the foreign markets.

JACOB MUELLER,  
*Consul-General.*

UNITED STATES CONSULATE-GENERAL,  
*Frankfort-on-the-Main, September 7, 1885.*

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## WURTEMBERG.

### REPORT OF CONSUL KIMBALL.

#### LEATHER.

The annual product of Wurtemberg's leather industry is valued at 37,000,000 marks. Upper leather for the manufacture of shoes is principally produced in Backnang (with over 140 tanneries), Reutlingen, Goppingen, Kunzelsau, Caln, Ebingen, Metzingen, &c. Raw hides are obtained partly from Wurtemberg, partly from Bavaria, Baden, Swit-

zerland, North Germany, and great quantities of kips are imported from East India and South America.

The following were the average wholesale prices of the year 1884, at the chief places of import, per 100 kilograms :

Bremen :	Marks.
Ox-hides, Buenos Ayres, dry .....	226
Ox-hides, Buenos Ayres, saladero .....	140
Kips, Durbungah, slaughtered .....	137. 67
Hooghley .....	208
Dakka .....	238. 67
Frankfort-on-the-Main :	
Calf-skins .....	346. 67
Goat-skins .....	391. 25
Hare-skins .....	330. 83
Hamburg :	
Ox-hides, Rio Grande, salted .....	116
West Indian, Central American, dry .....	191. 50
Cologne :	
Ox-hides, Buenos Ayres, salted .....	144. 33
ps, Dakka, dry .....	250

The material used in tanning consists principally of oak bark (costing about 12 marks per 100 kilograms), of which Wurtemberg supplies about 42 per cent. and Hungary and France the balance. The quantity of leather manufactured is estimated to be more than 100,000 kilograms annually, the output being exported partly to Bavaria, Baden, and Switzerland, partly to Austria, Italy, Russia, England, Belgium, and France. Considerable imports of sole, vache, and sheep leathers are made from various parts of Germany, of varnished calf and kid from South Germany and France, and of hemlock leather from the United States (Buffalo).

As to the question how American leather compares with the manufactures of other countries, all with whom I have consulted and who are dealers in leather agree that American leather is not thoroughly enough wrought, and not well tanned, and, in spite of its being cheaper, is less in demand. A slower and more natural process of tanning with oak bark is considered the best means of remedying the before-mentioned defect. In spite of my having directed the attention of a number of wholesale dealers in leather to the subject, none of them declared a readiness to engage in the import of American leather. They agreed in the opinion that efforts to such purpose might be more successful at Hamburg, Bremen, Cologne, and Frankfort-on-the Main, where large importing firms were established. There is but little American leather imported direct into Wurtemberg. Some firms in this district to whom I applied for information refused it altogether.

#### BOOTS AND SHOES.

For some years past the factory system of shoemaking has spread in Wurtemberg, and save in a few districts is of greater importance than manual labor. Machinery of every discription is used to a very large extent.

There are generally worn by both sexes the so-called "Zugstiefel" (low boots reaching a few inches above the ankle), and, to a less extent, shoes. Men wear the "Rohrstiefel" (high boots reaching about the calf) and women "Knopfstiefel" (button shoes). The output of the country is exported to Baden, Switzerland, Alsatia, and Holland, the greatest demand being for manufacture of an inferior kind. Shoes of elegant



make and superior quality are imported from Paris and Vienna, but to no great extent. No American shoes, I am told, are imported, and the high duties are likely to exclude them.

CHARLES P. KIMBALL,  
*Consul.*

UNITED STATES CONSULATE,  
*Stuttgart, July 15, 1885.*

### BAVARIA.

#### REPORT OF CONSUL BLACK.

#### LEATHER.

There are within the limits of this consulate no large tanneries, but the considerable number of small ones have an output which makes the industry one of some importance.

Sole leather is the kind generally produced, and ranges in price from 28 to 40 cents per pound for good, and from 20 to 30 cents per pound for inferior quality. Horse leather is also made to a small extent, and is used in the manufacture of boots and shoes; the finer part, called the shield, is sold at so much a pair of shoes—for women's shoes about 71 cents, for men's shoes about 82 cents, and for men's boots about \$1.30. This part is used only for the uppers.

The price for other parts than the shield is \$52.36 per cwt. Raw skins of horses are sold, according to size, at from \$2.85 to \$3.30, and raw tanned at about \$4.60. After passing through all the processes necessary to perfect them, their cost is about \$7.15 per skin. When finished the color is black and the surface glazed. Vache leather is manufactured to some extent in Pirmasens, Rhenish Bavaria, and calf-skins in Upper Bavaria, some being sent to the United States. The manufacture of horse leather and kid is made a specialty in Lower Bavaria.

At the present time trade is stagnant; those engaged in it claim that the price of leather is too low, as compared with the cost of the skins, the heavy freights, and the duty levied upon imported bark. The Government has been petitioned to abolish the duty now laid upon bark, in order that relief may be obtained; but so far no action has been taken by the authorities upon the appeal.

#### TANNING MATERIALS.

Oak bark is extensively used for tanning purposes; there is a large tract of public woodland in Bavaria from which a supply of about 26,000 cwt. is obtained per annum, for which about \$1 per cwt. is paid.

This, however, is insufficient to supply the demand, and large quantities are obtained from other sources, mostly from Hungary. In some inferior tanneries pine bark is used to the extent of about 32,000 cwt. per annum, it being much cheaper than oak, costing about 7½ cents per hundred pounds.

Valonia from Smyrna and Italy has been introduced lately in order to cheapen production, and it appears to be growing in favor.

#### SOURCES OF LEATHER SUPPLY.

Tanners purchase raw hides from the butchers at from about 9 to 11 cents per pound; horse-hides are also obtained here and are valued according to the size of the skin.



Foreign skins, also, are undoubtedly used in Germany. But of those used within the limits of this consulate I have been unable to find from whence they come, or to gain information that would even assist me in approximating the amount. I am unable to give figures which would show the amount of leather produced. The leather produced here is chiefly consumed within the Empire; there has been but little export trade in this line since Germany entered upon a protective policy.

The value of the leather invoiced to the United States from this consulate last year was about \$1,100; but it was mostly chamois, and the production of some other country.

Before 1879 the duty upon leather was but 1½ cents per pound, but since that time the duty has been 4½ cents per pound, and American sole leather or so-called hemlock leather, which was largely imported before the increase, is no longer brought into the country.

The same cannot be said of all grades, however, for patent leather and some other of the finer qualities are still imported in small amounts for use in the manufacture of boots and shoes.

Some horse leather is brought from Switzerland and England.

Most of the leather belting is brought from England and Belgium, although some little is manufactured here. At Passau, in Lower Bavaria, the price paid per pound is from 40 to 45 cents.

Fine colored sheep leather, black glazed goat-skin leather, golden color of the same, called *chevreau dorée*, as well as colored lining leather, is imported from France, Austria, Switzerland, Netherlands, Italy, and England, costing from \$4 to \$5.50 per dozen for colored sheep-skins, and \$12 to \$14 a dozen for *chevreau dorée*. Patent split leather is also imported from England, and some from the United States at about \$1.50 to \$1.75 per square meter.

Tanned splits at \$18 a dozen are received from England and a few from the United States.

"Chamois" or "Waschleder" is imported from Belgium in eight sizes, and varies in price from \$2.50 to \$10, for thirty pieces, according to size.

Glove leather is imported from Austria and Italy, and doe-skins and deer-skins from Austria, which are used by the manufacturers of leather breeches.

#### AMERICAN LEATHERS.

The American sole leather, as to its dryness and durability, proved very satisfactory to the dealers and shoemakers, but some objection was raised to its red color, which the hemlock used in tanning produced.

The oak, which is generally in use here, gives the leather a lighter color and is preferred. Some objection was also raised by reason of holes and cuts in the hides, and also because in some cases the flesh had not been fully removed from the skins, but it was admitted that the price paid was in accordance with the quality delivered.

Some carrion skins, being in some cases mixed with the hides, gave those seeking an increase of tariff a chance to sound the tocsin, which they did not fail to do, and the cry was raised that the duty must be increased in order to keep inferior American leather out of the market.

The utter annihilation of the trade in this class of goods between the United States and Germany bears witness to their success. I am fully convinced that this barrier alone prevents us from doing a large business in this line, for I know that, regardless of the defects complained of, the dealers and shoemakers would only too gladly use our sole leather in preference to any other.

## IMPORTERS.

The following persons, who are engaged in the import of leather, have been recommended to me: S. Einhorn, of Fürth; Carl M. Kromwell, M. E. Kromwell, Gebrüder Gallinger, and Julius Heilbranner, of Nuremberg. The terms upon which they would accept the agency would be a matter of private arrangement between themselves and the firms in the United States seeking to introduce their goods.

While I believe any of these houses would endeavor to introduce American leather, they are of the opinion that it would prove unsuccessful so long as the present German tariff remains in force.

## BOOTS AND SHOES.

Nuremberg, Fürth, and Schweinfurt are the principal places in Bavaria in which boots and shoes are manufactured.

Nuremberg and Fürth have five factories, whose yearly output is valued at about \$1,000,000, and in Schweinfurt there are two factories, producing goods to the value of \$250,000 per annum.

This industry is also carried on to a considerable extent in the vicinity of Nuremberg and Fürth, and in the towns of Culmbach, Herzogenaurach, and Kranach, together with the penitentiaries, but the production in all these is generally the result of hand labor.

In the factories of Nuremberg, Fürth, and Schweinfurt machinery is used in every part of the work connected with the making of the shoe, and any improvements offering advantage are instantly secured and placed in use.

The production of the factories of Schweinfurt is composed entirely of leather, and goods of a fair quality are turned out. In those of Nuremberg and Fürth none but the felt or melton styles are produced, and in the other places only the commonest leather goods are made.

## STYLES.

With the exception of those made of felt or melton the factory shoes are not much worn by men and women of the better class, for what reason I do not know, but the fault probably lies with the trade in not properly catering to this branch of custom.

Gaiters are almost universally worn by both male and female, the former almost without exception preferring the broad toe, while the taste of the latter runs in the direction of the pointed style. Lasting shoes are sometimes worn in the street by women, and the lasting morning shoe, a sort of slipper, is almost entirely used by them in the house.

The uppers of the better class of shoes are either of calf or kid for men, and either of calf, chevreause, kid, or patent leather for women.

The cheap, neat leather boot is generally worn by the laboring class, although some shoes of the same material are used by them. A goodly quantity of this line of goods is supplied by Bohemia, but the majority of them are made in the factories of Bavaria.

The use of ready-made shoes among children is almost universal, and the fashions include the lace, the button, and the gaiter; the uppers are made of the same materials as those for women.

Schweinfurt is the only place in Bavaria producing goods of this character. This market is supplied from there and other manufactories in the German Empire; I cannot find that any are imported.

Sizes are either in centimeters, in the measure known to the trade as the French measure, that is, three stitches equaling two centimeters.

The usual and best selling sizes are as follows: Nos. 22 to 26 for children; Nos. 35 to 41 for women; Nos. 42 to 46 for men.

The prices for the better quality of adult male shoes range from \$3.75 to \$5 per pair, and for those of women about the same; factory shoes for women from \$1.25 to \$2 per pair. Felt and melton, without leather, retail at from 85 cents to 32 cents; with leather sole, 50 cents to 62½ cents; and the best, with patent leather tips, &c., at from 62½ to 87½ cents per pair.

The shape of the shoe is short and broad, made so of necessity, in order that the foot which is peculiar to the Teutonic race may be accommodated.

#### IMPORTS AND EXPORTS.

The shoes manufactured here entirely of leather are consumed within the Empire, while those made of felt or melton are exported in large quantities to France, Italy, Holland, Belgium, Canada, Switzerland, the United States, and other quarters of the globe.

The imports in this line have been very much curtailed since the present tariff went into operation. The trade in boots and shoes with Austria, which in former times was considerable, has been largely supplanted by the factories already mentioned, and by those of Pirmasens, Mayence, Frankfort, Offenbach, and Erfurt. Austria, however, still sends some dancing shoes and quite an amount of a very cheap split neat leather gaiter with nailed sole, which retails at about \$1.12½ per pair.

From information I have received, I am led to believe that American boots and shoes have never been imported here.

#### INTRODUCING AMERICAN LEATHER.

The impression is general throughout the trade that the high duties will form an obstruction to any extensive business being done with America.

If, however, any success in this line can be attained, the shoes of women and children would be the most likely to accomplish it. The handsome finish which the manufacturers of the United States put upon this line of goods would probably prove sufficiently attractive to bring forth the extra price.

Samples sent to some good wholesale firm, who through the instrumentality of its traveling salesmen could use them in taking orders, would be the best means to accomplish the introduction of these wares.

A stock equalling the sales would have to be kept on hand here, as the retail dealers never invest in large lines, and at the same time are very exacting in requiring speedy delivery.

The houses in this trade which have been recommended to me as trustworthy and excellent business firms are; B. Berneis in Fürth, M. Kaufmann, jr., and Heinrich Rosenthal in Nuremberg.

In the shipping of the shoes special care should be taken that they are so packed as to prevent molding. While this could be removed, yet the appearance of freshness in the article is destroyed, and the sale is correspondingly injured.

WILLIAM J. BLACK,  
Consul.

UNITED STATES CONSULATE,  
Nuremberg, August 27, 1885.

## MUNICH.

## REPORT OF CONSUL HARPER.

## THE LOCAL LEATHER INDUSTRY.

There are in Munich six tanneries and two leather manufactories, besides dressers of white leather and kid for gloves.

The hides and skins for the tanneries are obtained from the slaughter-houses here.

The materials used are obtained mostly from the mountains and pine woods in the neighborhood. Some is imported from Servia, Austria, and Greece.

The oak bark is imported from Hungary and valonia from Italy.

The materials used in the preparation of calf-skins—alum, &c.—are produced here.

The output is mainly consumed here, but a considerable quantity of glove leather is exported to France.

There was until a few years since a large export of calf-skins to America, but owing to the high protective duties it has almost entirely ceased.

## AMERICAN LEATHER IN MUNICH.

There was formerly a large import of American leather, chiefly hemlock, but now it is very small because of its less fine appearance, fluctuations in price, and change in public taste.

I think, however, that there is an opening for a considerable consumption of American hemlock leather, provided it could be introduced at reasonable prices.

## BOOTS AND SHOES.

The large shoe manufactories use machines, mostly of American make, but for the most part they are run by hand-power. Nearly 15,000 men are employed in the shoe manufactories.

As labor is very cheap here hand-work is largely preferred to machine-work as being more economical, particularly for house and ball shoes.

Men wear chiefly high jockey and hunting boots; buskins, with elastics and buttons; half-boots, with hooks and lacings; high shoes, with lacings, elastics, and buttons, and low shoes with lacings.

Ladies' shoes: buskins, with elastics; high boots, with lacings and buttons; half-boots, with lacings, elastics and buttons; also various kinds of house shoes, slippers, sandals, &c.

Children's shoes: girls, high boots, low shoes, and half-shoes, with lacings, elastics, and buttons, and slippers.

Boys' top boots, high shoes, low shoes, buskins, with lacings, elastics, and buttons.

For ladies the toes are at present pointed and the heels high.

For men the toes are now pointed and the heels are both broad and low and high. Common shoes have round toes and low heels.

The sizes are: Small children, 17 to 22; larger children, 23 to 26; girls' and boys', 31 to 34; ladies', 35 to 42; youths', 35 to 37; men's 38 to 46—generally straight lasted.

A large quantity of cheap felt shoes are also made here, some of which are exported to the United States.

## IMPORTED BOOTS AND SHOES.

The output is distributed throughout the Kingdom—the finer qualities in the large cities.

There was formerly a large importation of shoes from Austria, but as these are now surpassed here the import is very small.

There is no importation from America, as with freight, duties, and the cheapness of German labor they would seem to be unable to make a successful competition.

I should think it would be advisable for two or three of the large manufacturers to combine in sending over an expert who speaks German, and who would be able to obtain fuller and more reliable information, and who might succeed in establishing a market for American goods.

JOSEPH W. HARPER,  
*Consul.*

UNITED STATES CONSULATE,  
*Munich, June 5, 1885.*

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SAXONY.

## REPORT OF CONSUL MASON.

## LEATHER.

The price of hides and skins and all materials of preparation has steadily increased for years, while the manufactured article has remained nearly stationary, or quite so. Indeed, the cost of domestic hides and skins has advanced so much that in order to have them manufactured at home, a heavy duty has been laid on all such articles imported from without.

The importation of leather from England has greatly diminished on account of the duty of 36 marks per 100 kilos for sole leather, but the duty of 18 marks per 100 kilos on "machine straps" or belting has not proved a sufficient protection for the home article, and such goods are largely imported, as they are cheaper and of finer appearance, though not believed to be better or more durable than those of German manufacture.

The cost of tanning and preparing leather and calf skins is from 2 to 2½ marks. Kid leather is tanned with alum, salt, wheaten meal, and yolks of eggs. All these articles are produced at home.

Five hundred to six hundred thousand calf-skins, 40,000 bullocks' hides (sole leather), and 15,000 horse skins are produced, and find market in Germany, England, Russia, Austria, Switzerland, and Australasia. The export of machine straps (belting) is principally taken by Austria, Holland, and Scandinavia.

The importation of leather for gloves, which is from Brussels and Denmark, of morocco and colored leathers, amounts to 520 to 540 kilos per annum. All other importations, 820 to 850 kilos. There is no importation of leather from the United States. The only American leather capable of competing, with the duty added, with German leathers, is sole leather, and this is not thought so good in quality as the home-made, as only our cheapest ever find a market here, and then with great difficulty. They allege that the preparation is not so thorough,

and the article is wanting in toughness and stamina. Indeed, the duty operates greatly against the introduction of American leather, and hence the void of a market here. They say there is a great loss in waste or remains in the use of American leathers.

#### BOOTS AND SHOES.

Very little is to be said of the boot and shoe trade of this district. Formerly there were many more signs of "boot and shoe makers" than we now find. Large manufactories are springing up, with abundant capital, and with the liberal use of machinery in the manufacture of their wares low-grade shoes can be sold at lower rates than those formerly made by hand; consequently small proprietors are absorbed, giving energy to the new interests with increasing and satisfactory profits.

The largest manufactory here is extending its proportions and placing new machinery. The number of workmen has increased for several years past 10 per cent. per annum, and the production is now 700 pairs daily.

The pattern generally turned out is the bootee style, lacing or buttoning up over the instep, though other styles are produced to order. The sizes of men's boots are 27 to 30 centimeters, of women's 22 to 24 centimeters, and children's 16 to 20 centimeters.

One never meets American boots or shoes on the market here, and I must add that with the high price of labor in the United States, and with the increasing protective duties here, even with our superior machinery we cannot compete in open market here with their cheap labor and with the improving methods constantly engaged and adopted here by the manufacturing interest in the boot and shoe trade.

J. F. MASON,  
*Consul.*

UNITED STATES CONSULATE,  
*Dresden, July 16, 1885.*

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#### LEIPSIC.

##### REPORT OF CONSUL DU BOIS.

##### TANNING INDUSTRY.

The condition of the German leather industry has unquestionably improved during the past six years. During the past year 5,083,720 pounds of all kinds of leather, except sole and glove leather, were imported into Germany, and 8,040,780 pounds were exported.

Of sole leather, 3,125,540 pounds were imported and 2,028,840 pounds exported, but none of the latter went to the United States.

The material usually employed is oak bark, which largely comes by sea from Holland, where it flourishes in abundance near the river Maas. The large tanneries in Neumunster and Schleswig use *Algarobilla* to some extent in tanning horse hides.

Saxony has 733 tanneries and 1,889 workmen, which is about 87 persons out of every 100,000 of the inhabitants of the Kingdom. The Leipsic district has 172 tanneries and 545 workmen, or 99 persons in each 100,000 inhabitants.



The hides and skins are received from almost every quarter of the globe. In the production of sole leather the German and South American hides are chiefly used. The calf-skins and other upper-leather material come principally from Germany, India, and Russia, while kid and sheep skins are received from Servia, Italy, South America, and India. The cost of tanning brown upper is about 15 cents per pound; brand sole leather, 9 cents; leather for saddlery purposes, 18 to 20 cents; black leather, 17½; sole leather, 12 to 14, and the finest 15 cents per pound.

The complaint that the American tanning process is too rapid is easily understood when it is known that some German tanners employ from one to one and a half years in turning out their hides.

#### TANNING MATERIALS.

The materials used in tanning were until recently almost exclusively oak and "fichten" bark; but now the extracts from oak, fichten, chestnut, quebracho, and valonia are being employed with satisfactory results. The oak and fichten extracts come from Germany, and the other extracts are largely imported.

Many tanners use from one-third to one-half of oak bark mixed with other extracts, but a few use exclusively oak bark. Fichten bark is used in tanning medium quality of upper, sole, and brand sole leather. A few great tanneries use oak mixed with a small portion of valonia.

The question of tanning bark is becoming an important subject of discussion among the German tanners, and numerous propositions and efforts have been made to increase the supply, especially the home supply, of oak bark.

In 1884 Germany exported 9,763,600 pounds of tanning bark and imported 131,358,800 pounds. The average annual export of the same article during the thirteen years 1872 to 1884 was 12,771,800 pounds, and the average annual import was 137,310,600 pounds. The average price paid was 14 marks and 30 pfennigs per 100 kilos.

The import was lowest in 1874 and the export was lowest in 1883. Imports and exports were highest in 1877.

#### PRODUCTION.

As to the quantity of leather manufactured and the consumption of the output, it may be observed that the former is steadily increasing, and the home demand is large and maintains rather steady prices. The sole and *rache* leather produced is largely consumed by the home markets, while calf and goat leather is tanned to a great extent for the foreign demand, and much of it is exported in manufactured form, such as gloves, traveling-bags, toilet-cases, &c. The most important tanneries of the Empire are in the Rhine Province and Westphalia. Two of the largest tanneries in Germany are those belonging to Henry Knock in Hirschberg, Saxony, and the Moll tannery in Breig, Selesia. The former turns out 100,000 hides annually and the latter about 50,000.

Thuringia has some large and well-established concerns. Brown and white calf leather is largely produced in Alsace, and considerable brown upper leather is made in the Kingdom of Wurtemberg. The great shoe manufactories which consume this leather are located in the Rhine Pflz, at Pirmasens, and at Mainz; also in Thuringia, at Erfurt, Gotha, and Weissenfels. Scattered through the Empire are other factories of considerable importance.

## IMPORTS OF LEATHER.

The importation of leather into the Empire has considerably decreased since the tariff law, imposing a tax of 36 marks per 100 kilos of sole leather, came into force. Notwithstanding this tax, however, considerable quantities of English, American, and Belgian leather is marketed in Germany. The following tables will speak for themselves:

*Leather imported into and exported from Germany in 1884.*

Description.	Imported.	Exported.	Amount of tariff collected.
	<i>Kilos.</i>	<i>Kilos.</i>	<i>Marks.</i>
Leather of all kinds, except sole and glove, at 18 marks per 100 kilos	3, 373, 200	3, 654, 900	425, 880
Sole leather at 36 marks per 100 kilos.....	1, 420, 700	922, 200	510, 948
Total .....	4, 793, 900	4, 577, 100	936, 828

*Leather imported into Germany from the United States during the year 1883.*

Description.	Quantity.	Value.
	<i>Kilos.</i>	<i>Marks.</i>
Raw cow-hides salted and dried .....	1, 880, 400	2, 539, 000
Raw horse-hides .....	44, 500	53, 000
Leather of all kinds, except sole.....	4, 900	16, 000
Sole leather.....	44, 600	103, 600
Total .....	1, 974, 400	2, 711, 000

*Export of leather from Germany to the United States in 1883.*

Description.	Quantity.	Value.
	<i>Kilos.</i>	<i>Marks.</i>
Raw cow-hides salted and dried .....	109, 700	199, 000
Raw calf-skin .....	231, 900	765, 000
Leather, except sole and fine leather.....	166, 500	609, 000
Sole leather .....	10, 000	78, 000
Coarse shoemaker's and saddlers' wares.....		
Total ..	518, 100	1, 741, 000

## AMERICAN LEATHER.

The American leather, especially sole leather, owing to its cheapness, was in great demand before the new tariff came into force. Notwithstanding its cheapness, as compared with the leather of other countries, much complaint was heard among the German consumers. While the hemlock and union tanned American sole leather possessed the advantage of dryness and ample tanning, the German shoemaker protested that the quick extract-tanning process, largely employed in the United States, makes the leather fibers brittle and gives the sides a red color, which is objectionable.

This and the complaint that the American leather is not carefully enough prepared, especially the flesh side, are among the principal reasons why the German consumers prefer the home product. If these are really just causes for complaint they may be easily remedied, and thus remove a barrier to our trade.

## INTRODUCING AMERICAN LEATHER.

To suggest the best means for the wide extended and effective introduction of our leather to the German market we have only to employ a short and concise phrase, "Please the German consumer."

The American leather should be made softer and tougher; the flesh side should be better prepared, and as white a color as possible should be secured. When these conditions have been produced the demand for American leather will improve, and it will found that the present tariff of 18 and 36 marks per 100 kilos for upper and sole respectively will not interpose so great a barrier as many now suppose.

## LEATHER MARKET OF LEIPSIK.

The Leipzig *Messe*, which for seven hundred years has been famous with the commercial world, had as one of its strong features the leather trade; but of late years there has been a considerable decrease in the transactions. The fact is, the railroad communications, telegraph, cheap packet transportation, and the energetic commercial traveler have broken the back of the *Messe*, and fortunately for Leipzig, successful industry has been established within her borders so as to check her commercial decline.

The sale of leather *en gros* opens the Easter *Messe*. The sales made this year were fair, but the American leather which was formerly a strong factor in the *Messe* scarcely made its influence felt on the market.

The following quotations represent the present condition of the market:

	Marks.
Rhine and Westphalian sole leather.....:..... per 100 kilograms..	340
Bavarian and Saxon sole leather .....	do..... 310, 320
American sole leather.....	do..... 300

## DEALERS AND MANUFACTURERS IN LEATHER.

Among the great leather dealers of the Empire may be mentioned the following firms: Adolf Wiengreen & Co., Hamburg; F. L. Bruckmann, Hamburg; M. L. Salomon, Berlin; Albert Salomon, Berlin; Carl Ludwig Funk, Frankfurt-on-the-Main; Gallinger Bros., Nuremberg; Max Carl Königsberger, Furth; David & Sons, Speyer; Reneck Bros., Breslau; F. Reis, Breslau; F. Weinoldt & Lange, Leipzig; Gustav Platzer, Leipzig.

Among the most prominent leather manufacturers may be mentioned the following firms: Cornelius Heyl, Worms; Dorr & Reinhardt, Worms; Carl Simon & Sons, Kirn-on-the-Nahe; Wilhelm Simon, Kirn-on-the-Nahe; Mayer Michel & Denninger, Mayence; Aug. Zager, Bonn; Carl Lasch, Endingen; Charles Simon Sons, Barr in Alsace; Diescl & Weise, Passneck in Thuringia; Carl Weithase, Passneck in Thuringia; Carl Groger, Plauen; Heinrich Knoch, Hirsberg-on-the-Saale.

## THE BOOT AND SHOE INDUSTRY.

In trying to secure facts for this report an almost insurmountable obstacle has been directly in the way. It appeared to us in the form of the Saxon shoemaker who plants himself firmly on the principle that statistical communications corrupt monopoly, and nothing in the shape of human persuasion is potent to move him one peg from this position.

A stranger finds it difficult to secure admittance to a shoe factory, and such is especially the case where it is known that he is an American who is seeking for information.

I submitted a few questions in writing to a boot and shoe manufacturer, questions such as "To what extent is the system of factory shoe-making carried on in Saxony?" "Are machines used and where are they made?" &c. After retaining these questions for about one week, he returned them accompanied by the following note:

HONORED SIR: After having read again and again your questions I find that it would not be proper for a German shoemaker to answer them. If I can be of service to you on more neutral grounds I will be pleased to accommodate you.

I turned to other sources for my facts, convinced that the Saxon shoemaker intends to boot and shoe his own countrymen, and that it will require a very clever rival to get the better of the enterprising Teuton in his efforts to protect the interests he has in the sales of his compatriots.

The German tanner is more liberal with his statistics. While the Saxon shoemaker recedes within himself and takes all he knows about the Saxon system of shoemaking with him, the Saxon tanner falls into a liberal talk about skins and bark, and vats and extracts, as easily as good old Silas Wegg, with his peg leg, was in the habit of falling into poetry.

#### SHOE FACTORIES.

The truth is, the shoemaking industry in Saxony is rather primitive and little known outside of the borders of the Kingdom.

But one town in Saxony is really noted for its shoe factories, and that is Groitzsch, where several establishments are located which use machinery. Most of the machines used are of American origin, and are manufactured by C. S. Larrabee, Frankfort-on-the-Main. Sometimes one sees the French soling-machine in operation.

During the past ten years the system of making shoes by machinery has made marked, we might say colossal, progress. In 1874 there were only five factories in Germany employing steam. To-day there are over ninety, and the most of them are pegging away energetically in order to meet the home demand. The greatest of these establishments are located in the Rhine Pfalz and Thuringia.

The largest supply of foreign boots and shoes to be found in the German markets come from Vienna and Prague, but these importations are not large enough to make any serious competition with the domestic wares.

#### AMERICAN SHOES.

It is generally acknowledged that the American shoemakers are the best in the world, but the trouble is, the world wants cheap goods, and that desire is so strong that when much badness comes mingled with the cheapness, the first quality is only thought of until it is too late.

But in all parts of the globe there is a small and very respectable element who, wise through observation and experience, believe, and teach their children to believe, that good quality in things as well as character wears longer and costs less than medium or bad quality has done since the sandal gave way to the shoe, and to this belief they and their posterity will remain true and loyal to the last gasp. Properly introduced to this element in Germany, the American shoe would receive a warm welcome and would not soon wear that welcome out.

The first attempt to place American boots and shoes in the German market was not very successful, for various reasons. In the first place, there is a difference between the average German foot and the average American foot. The former is broad, strong, and low in the instep; the latter is small, narrow, and high in the instep. It is, therefore, plain that a German last is for a German shoe, and an American last for an American shoe, because one for the other would never do.

Our shoe manufacturers should, therefore, study the German foot. The formation of the foot, the character of the heels and toes, the prevailing tastes as to style and material, should be made special objects of study.

I firmly believe that it is possible for an American shoemaker to invent a last which would produce, by an American machine, a normal shoe made out of American leather that would suit the average German foot, and when this has been accomplished a remunerative market for the American shoe will be made.

This shoe, however, should be made as cheaply and as solidly as possible, and ought to be constructed entirely of American tanned leather, which wears the best of any leather in the world.

Some of our American shoe manufacturers import German and French leather and send it back to those countries in the shape of machine-made shoes, paying, first, a tax on entering the leather at home, and again upon entering the shoes at a foreign port.

#### BOOT AND SHOE FIRMS.

The following firms are engaged in the importation of boots and shoes: Wilhelm Blecher, Hamburg, and Wehner & Macker, Berlin.

Among the most important shoemaking firms in Germany may be mentioned: Otto Herz & Co., Frankfort-on-the-Main; C. F. Bohnert and Edward Lingel, Erfurt; J. C. Meischke & Sons, and Korn & Bredt, Leipsic; Peter Kaiser and H. Gorlich & Sons, Pirmasens; M. Moritz Schmidt, Dresden; R. Bartels & Co., in Nippes by Cologne; S. Wolf, Mayence.

JAMES T. DU BOIS,  
*Consul.*

UNITED STATES CONSULATE,  
*Leipsic, May 29, 1885.*

#### SAXE-MEININGEN.

##### REPORT OF CONSUL MOSHER.

##### LEATHER.

The manufacture of leather and shoes can hardly be described as one of the prominent industries of the Sonneberg district. Tanning is in most of the towns a house industry, the whole family, even the mother and children, assisting in the process. The majority of such tanners have but one vat; it is the exception to have as many as three. They obtain the hides chiefly in the locality, and whatever surplus of leather is made is sent to the large cities or to fairs.

The material used for tanning is, in most cases, oak bark; but pine bark and alum are sometimes used. By far the greater part of the oak



bark must be imported, principally from Hungary. These imports of bark are, so far as this district is concerned, mainly for the large tanneries at Stadt-Ilm, Arnstadt, Gotha, Ilmenau, Erfurt, and Neustadt-an-der-Orla. Nearly all the hides for these tanneries are purchased of the large importers at Bremen and Hamburg, and the cost is estimated to be about 19½ cents a pound at the tanneries. The prices for domestic hides at the tanneries are as follows: Dry cow-hides, 23½ cents a pound; green cow-hides, 10.7 cents; dry calf-skins, 42½ cents; green calf-skins, 19 cents; dry sheep-skins, 11.9 to 19 cents a pound.

The tanning of horse-hides and the manufacture of the leather into boots and shoes are carried on to a considerable extent. One of the largest tanners in the district uses only horse-hides, obtaining them in Germany, France, and Buenos Ayres, at a cost of from \$3.81 to \$4.40 per hide. The prevailing price for domestic horse-hides is about \$3.81 a skin. He tans from 6,000 to 8,000 hides yearly, and the whole product is consumed in the country. He has tried horse-hides from the United States, but finds them of too light weight for the demand.

But very little leather is imported directly into the district. What the local tanners cannot supply is purchased of the importers and large dealers at Hamburg and Magdeburg, and consist, aside from native leather, of English, Russian, French, and American manufactures, the French being considered the best. The prices paid by the shoemakers are about as follows: Kip, 47½ to 59½ cents a pound; calf (French brown), 95 cents to \$1.07 a pound; calf (Russia black), \$1.90 to \$2.38 a skin; calf (native), 67 to 71 cents a pound; horse-leather, neck and sides, 47½ to 57 cents a pound. The remaining portions of the horse-hide are tanned and bought by the piece; enough for the fronts and backs of a pair of boots costs from 71½ to \$1.07; the fronts of a pair of shoes, from 43 to 47½ cents; half fronts for a pair of shoes, from 28½ to 33½ cents. Kid, for ladies' boots, and patent leather (glanz leder) cost from 95.2 cents to \$2.14 a skin. The latter is much used, and is brought principally from Hesse, Worms being the chief center of its manufacture. Sole-leather, ordinary native, costs from 33½ to 38 cents a pound; the American, of which not much is used, costs from 35.7 to 38 cents a pound. It is generally regarded as better for wet weather than the native, but more apt to break in dry weather. The best native sole-leather costs from 38 to 50 cents a pound.

For several years past tanning has hardly been a profitable business in Thuringia. The report of the Gera Board of Trade expresses the belief that fully one-third of the German tanners have failed during the last ten years—a higher proportion than is to be found in any other business. The same report complains that the manufacture of calf leather in particular suffers from the protective tariff of the United States and from the competition of Alsatian tanners. The latter, having become prosperous through their exports to America, now fill the North German market with leather at prices which the Thuringian tanners cannot meet. Complaint is also made of the high prices of foreign sole-leather, and of the deterioration of leather-stock through the importation of foreign hides.

The demand seems to be for the heaviest and coarsest grades of all kinds of leather, although the shoe manufacturers at Erfurt are encouraged by a call for a better quality of wares in the last two years. The demand for welt leather is greater than the supply. Vache leather is in good demand, and so are dressing hides of the lighter weights. There is generally a steady demand for horse-leather.



## BOOTS AND SHOES.

The factory system of manufacture can hardly be said to prevail, although in the cities of Erfurt, Gotha, Arnstadt, Weissenfels, and Ilmenau there are shoe factories of some consequence. The machinery used in these factories is generally of native manufacture, but one factory in Erfurt, employing 800 operatives, uses American machinery. The output of the district is generally consumed in the country, and but a very few goods are exported.

Most of the goods on sale in the larger stores are machine (factory) made, being brought largely from Australia; but the numerous shoemakers in all the large towns, who do only hand-work, are a noticeable feature of the business. At these shops children's low calf shoes cost \$1.42 a pair; children's button boots, calf or patent leather, \$1.90; ladies' fine kid button boots, \$3.57; and gentlemen's fine calf boots, \$3.50 to \$3.80. In all these cases the goods are hand sewed.

Retail prices for ready-made goods rule low. Men's heavy cowhide boots cost from \$1.78 to \$2.73 a pair; men's double-soled congress boots cost from \$1.90 to \$2.62; women's cloth congress boots with patent-leather tips, \$1.31; and women's low leather shoes from 90 cents to \$1.26.

As to the boots and shoes worn, large sizes predominate, and they are not as a rule neat or shapely. The mercantile classes wear calf, but not of a fine quality. Working-people generally wear cowhide, the soles covered with large-headed nails. Among all classes, including women, heel-irons are much worn. So-called felt shoes are a prominent and noticeable feature. Nearly all classes wear them in winter for house shoes, while very many of the poorer classes have no other shoe for the whole year, wearing the felt through the snow, wet, and mud of the cold weather, and going barefoot in summer. The uppers of these shoes are shoddy cloth, the stiffening is usually pasteboard, and the soles are felt, from one-eighth to one-quarter of an inch thick. They are mainly the product of penal labor, and cost from 10 cents to \$1.19 a pair, those costing two marks (47½ cents) perhaps being most worn.

## AMERICAN MANUFACTURES.

I know of no American boots and shoes at present in this market. I have talked with several dealers with reference to their introduction, but they are unanimously of the opinion that the low wages in this country and the import duties would make it very difficult to successfully place our goods on the market. But they are interested in knowing our prices, and if manufacturers would send price-lists and descriptions of goods to the consulate it might result to their advantage.

A still better way, in my judgment, would be to expose the wares themselves at the New Year and Easter fairs at Leipsic. This applies to leather as well as to boots and shoes. There is a large traffic in all these articles at these fairs, and they offer the opportunity of reaching customers from all parts of Germany in the course of a few days.

GEORGE F. MOSHER,  
Consul.

UNITED STATES CONSULATE,  
Sonneberg, June 25, 1885.

## SILESIA.

## REPORT OF CONSUL DITHMAR.

## LEATHER.

American sole and belting leather have been for the last twelve or fifteen years sold in considerable amounts in this district. Although some of this leather has been imported directly from the United States, the greater part, and of late years the entire supply, has been purchased from importers in Hamburg and Frankfort-on-the-Main. The best American belting is so superior to the best German that although a great outcry has been raised against hemlock-tanned leather, not only by the manufacturers, but notably by chambers of commerce, it has maintained its place in the markets of the district. A few extracts from the annual reports of the Breslau Chamber of Commerce since 1873 will best describe the influence exerted by American leather on the Silesian markets and the feeling it has evoked:

1873.—The leather manufacturing business, in spite of some untoward circumstances, is in a sound condition. The high prices of the raw material have prevented an overproduction, the supply being thus kept within the limits of the demand. That the profits were so inconsiderable is owing to the large amounts of American hemlock sole leather which were forced upon the German market, the number of sides imported sometimes reaching as high as 1,500 in one week. This enormous quantity coming into competition with our domestic sole leather had the effect of reducing the price of the latter nearly  $7\frac{1}{2}$  per cent. In Silesia the smaller tanneries produce upper leather, using as raw material principally the lighter domestic and East Indian hides and calf and horse skins. Their product is bought either for the immediate use of the workshops or for the country fairs and commission houses. Of the larger tanneries many produce, in addition to upper, outer and inner sole leather and belting leather from wild (South American) hides, and saddlery and harness leather from domestic hides, the latter being bought for army use and also by leather dealers in and beyond the province.

1874.—The expectation of many in the trade that the great influx of hemlock leather which occurred last year would cease has not only not been realized, but large amounts of leather have also been imported from Austria and England, so that it seemed as if prices must give way. The increased cost of the raw material, however, caused our tanners to reduce their output.

1875.—German hides fell in the first quarter of the year 12 and 13 to  $7\frac{1}{2}$  and 8 cents per pound, and wild hides, which came in large quantities from South America, depreciated 36 per cent. in value. Foreign tanning substances fell 35 to 40 per cent., so that the conditions were again favorable to the manufacturers.

1876.—The depression continues. Higher import duties demanded.

1877.—Cow and ox hides in request in the Breslau market; sales for the year amounted to between 50,000 and 60,000, large quantities going to Russia and Austria. Tanners complain of the cost of tanning substances, the hemlock bark used in America being much cheaper and in greater supply.

1878.—The condition of the leather industry will not improve until the state protects it against the yearly increasing importation of transatlantic articles.

1879.—The hemlock leather still unsold in the German markets was returned to America and sold at a better profit than could be expected here, the unprecedented demand there having sent up the price about 40 per cent.

Hides were also reshipped to the United States, and even German slaughter-house hides were exported thither, bringing an advance of 20 per cent.

1880.—After many years of depression in the leather industry a change for the better seems really to have set in. The benefits derived from the new tariff law are by no means slight and should not be underrated. At all events, the new import duty will make difficult, if not entirely prevent, the glutting of the German markets with an inferior foreign article.

1881.—The promise of 1880 was not fulfilled. The year opened fairly well, but in April business began to stagnate again. The year left few pleasant recollections for the leather manufacturers.

1882.—Our report of the condition of the leather industry in 1881 will apply equally as well to 1882. The hopes for an improvement which had been entertained by many came to naught. Good American hides for sole-leather tanneries were scarce and high

priced. Some upper leather was exported hence to Austria, without, however, influencing the price; on the other hand, the importation of American sole leather still continues, although perhaps not in so large quantities as formerly.

1883.—The market remains depressed the entire year. The amount of leather changing hands was at least 10 per cent. less than in 1882. Exports to Russia and Austria have been reduced to a minimum, owing to the high import duties imposed by those countries.

A note addressed to a gentleman in this city, who is considered an authority in all matters relating to leather, elicited the following reply:

The Silesian leather industry has within the past decade undergone a change, inasmuch as the number of small tanneries has greatly decreased, while those remaining, combining the experience of the past with modern facilities, are enabled to meet, in the main, the demands for a greater quantity and better quality of leather, occasioned by the growth of the population and of general prosperity.

The import of heavy foreign hides (chiefly from the La Plata States) has materially decreased since the Valdivia and hemlock (American) leather entered into competition with our domestic leather, a competition which has been deeply felt. The manufacturers have latterly, in a great measure, received their supplies from local butchers and from South Germany, the domestic hides of to-day being far superior to those of former years both in weight and strength.

A few years ago some hides were sent to Germany from the United States, a German house in Chicago making the experiment. These hides were distributed in various parts of this country, but with unfavorable results. The method of salting, while not increasing materially the prices of the raw hides, was less thorough than that practiced in South America, and caused the tanners here in some instances a loss of 20 per cent. in weight alone.

The butchers' prices for domestic hides are: Cow and ox, weighing 21 to 27½ kilos (including horns and bones), 15½ to 16½ cents a kilo; cow and ox, weighing 28 to 37½ kilos, 16½ to 19 cents a kilo; cow and ox, weighing 38 to 45 kilos, 19 to 21 cents a kilo; steers, 15½ to 16½ cents a kilo.

Direct importations of East Indian skins, adapted for upper leather, have been for some years growing in importance, and these tend to make good the loss of the large amounts of domestic calf-skins exported in recent years, partly in a raw state, to England, France, Spain, and the United States, and also of those which are brought here for the Rhenish and Saxon markets to be converted into kid and patent leather.

Oak and fir barks, the former procurable in Silesia in large quantities and of excellent quality, are mainly used in tanning—oak for sole and fir for upper leather. Gall-nuts are imported from Austria, but not to a large extent.

I estimate the value of the leather manufactured in Silesia at about \$1.19 per head of the population (a little more than 4,000,000). The amount exported hence into the neighboring province of Posen does not vary greatly from the sole leather imported by us from South Germany and the Rhine country.

The import of American leather, which is not in my opinion a direct importation—the source of supply for us being Hamburg—has, since the increase of the import duty, greatly decreased.

American leather is distinguishable from German in the first place by its color. The quality of the oak-tanned American leather may be considered equal to the German, especially as in the United States a better sort of raw hides are taken for oak tanning. The hemlock tanned, on the contrary, is mostly inferior to our leather, particularly in point of durability. One advantage of the American leather is that it does not lose in weight, but it is also encumbered with useless ragged edges, which are clipped off by our tanners, so that the same hide that would weigh 20 kilos and upward when tanned in America would weigh only 18 kilos if tanned here. American leather will only suit this market if an inferior kind can be sent at such a price as to greatly undersell our leather of like quality used for making cheap boots and shoes, or if best oak-tanned leather can be sold here at or below the price which the German article commands.

I cannot recommend any method for the introduction of American leather or for the extension of the trade therein. Our sole-leather manufactures were in a most deplorable condition in the decade between 1870 and 1880; a fact the more remarkable as this branch of the trade had formerly been the most prosperous. In order not to permit this industry to be crushed entirely it was found necessary to protect it by high import duties against the rivalry of cheap foreign manufactures.

There are two firms in Breslau which have heretofore sold American leather, and will probably continue to sell it so long as it is profitable to do so; their names and addresses are: F. Riess, Büttnerstrasse, and Gebrüder Remeck, Antonienstrasse.

The firms of Riess and Remeck, here mentioned as dealing in American leather, are two of the most substantial and enterprising

leather-houses in Breslau, and I can heartily commend them to our leather manufacturers who may wish to extend their business in this direction. That good American leather finds ready sale here is sufficiently indicated by the letter above given.

Mr. F. W. Moll, proprietor of the largest tannery in Silesia (and one of the largest in Germany), in answer to an inquiry addressed to him, writes as follows :

In 1884 there were tanned at this place 25,000 German and 28,000 wild hides. The price for these hides delivered was for German, according to weight, 16½ to 24 cents per kilo; for wild salted, 14 to 16 cents; wild dried, 23½ to 25 cents.

The amount of leather sold was:

Kind of leather.	Quantity.	Price.
	<i>Kilos.</i>	<i>Per cwt.</i>
Sole.....	280,000	\$34.99 to \$38.08
Inner sole.....	285,000	29.59 to 31.42
Vache leather from German hides.....	860,000	31.42 to 33.32
Belting.....	45,000	39.27 to 49.98
All other.....	20,000	24.00

The substances used for tanning were:

Articles.	Quantity.	Value.
	<i>Kilos.</i>	<i>Per cwt.</i>
✓Oak bark.....	350,000	\$1.31 to \$1.43
Fir bark.....	3,000	72
Valonia and gall-nuts.....	57,000	9.52 to 10.71
Divi-divi.....	120	7.14 to 8.33

During the year 270 to 300 workmen were employed.

In 1874 this tannery sold as follows:

Kind of leather.	Quantity.	Price.
	<i>Kilos.</i>	<i>Per cwt.</i>
Sole.....	420,000	\$39.27 to \$40.41
Inner sole.....	280,000	32.84 to 34.27
Vache (sole).....	300,000	37.89 to 39.27
Machinery.....	70,000	48.55 to 53.55

Of tanning substances there were consumed as follows:

Articles.	Quantity.	Price.
	<i>Ozts.</i>	<i>Per cwt.</i>
Oak bark.....	100,000	\$1.43 to \$1.79
Firbark.....	15,000	72
Valonia and gall-nuts*.....	10,000	.....
Divi-divi.....	6,000	3.57 to 5.71

\* Cost not given.

The number of employ  s varied from 350 to 400. Whether this falling off in the output, as well as in the profits, is due to the importation of American leather is not stated.

## BOOTS AND SHOES.

The factory system of making boots and shoes is not carried on to any great extent in this city or district. There are four factories in all in the district, and these use machines made in South Germany, but modeled after the American. They do no pegging work, however, for the reason that the German shoe-pegs are of a shape unsuited to the machines, and as it has never occurred to any one to import American pegs, the machines are used exclusively for sewed work. The four factories employ in all less than 1,000 hands. The two located in Breslau turn out only fine and medium goods, both for women's and men's wear. The coarser, heavier, and cheaper articles are made in the prisons, where, also, some contractors for army boots and shoes get their supplies. One large store in this city sells prison goods exclusively, without, however, advertising the fact; and these goods, though somewhat cheaper than the shop fabrics, are in appearance, at least, equal to the best of the latter.

The styles of boots and shoes worn are not different from those worn in the United States. Women's shoes are made here, as there, of calf, kid, morocco, and patent leather; men's of calf, kip, and cordovan or horse leather; cow-hide boots and shoes are the wear of the peasants and of most laborers, both on account of cheapness and durability.

Silesian-made boots and shoes are consumed almost exclusively in the province, the exceptions being some prison manufactures and some small lots occasionally sent into the adjoining province of Posen. The high import duty now exacted by Russia precludes the export to that country.

Fine boots and shoes, first-quality ladies' shoes, and some fancy styles of men's wear, of kid, morocco, and patent leather, are imported from Vienna.

American boots and shoes, so far as I can learn, have never been brought into this district. How they would suit the market—granted that they could be sold here at a price to suit purchasers—experience alone would show. Neatness and durability as well as cheapness are prerequisites. Good calf-skin and kid men's sewed gaiters, with oak-tanned soles, are made to order for \$3.31 to \$3.57; stylish gaiters of best leather, \$3.81 to \$4.29; boots and half boots, ready made, \$3 to \$6; women's shoes, kid, calf-kid, and morocco, Vienna make, \$3.81 to \$5.71; same styles, domestic make, \$3.09 to \$4.76; medium kinds, make and leather inferior, but good finish, \$1.43 to \$2.86.

The cheapest shoes for both men and women, pegged and coarsely made, sell for 96 cents. There are in this district no wholesale dealers in boots and shoes except the manufacturers. The importation of Vienna goods is confined to the retail dealers, who import small amounts at a time, and thus have no old styles left on their hands. If American boots and shoes are to gain a foothold in this market, they will have to effect an entrance by way of Hamburg or Leipsic; whatever succeeds there is sooner or later accepted here.

Alexander Mohr, No. 3 Schweidnitzerstrasse, Breslau, is shoe manufacturer, inspector, and dealer, and would be willing to receive offers from American dealers or manufacturers.

HENRY DITHMAR,  
*Consul.*

UNITED STATES CONSULATE,  
*Breslau, June 13, 1855.*



**PRUSSIA.***REPORT OF CONSULAR AGENT COLLAS.***LEATHER.**

The hides cured here are derived partly from the province and partly from foreign countries. The importation consists of heavy ox and cow hides from South America, whilst lighter hides come from East Africa, the East Indies, and Brazil principally, via Antwerp, Hamburg, and England.

Prices here are as follows:

	Pfennigs.
German ox-hides, wet .....	per kilogram... 70-80
Wild hides, wet salted .....	do.... 90-120
Dry and dry salted .....	do.... 100-240

The tanning material, consisting chiefly of oak bark, is obtained here and in all Northern Europe, but the best bark is supplied from Hungary.

Prices here are about 8 to 12 marks per 100 kilos, but in this province (West Prussia) fir and chestnut tree bark is largely used. About 20,000 inland and 20,000 wild hides are worked annually.

The import of manufactured leather is principally hemlock and Valdivia sole leather, for which prices rule from 2.40 to 3 marks per kilo, whilst the sole leather from West Germany and Switzerland fetches 3 to 3.40 marks.

European sole leather is preferred to American, as it wears much better, but the latter has gained an extensive field on account of the lower price. Hemlock bark, which is generally used in America for tanning, is rather too powerful, through which the leather fibers, in consequence of the quick widening of the pores, are much weakened and thus render less resistance to wear.

On the other hand, the American preparing and finishing are very satisfactory.

In order to introduce American leather here more extensively and successfully the said faults should be remedied. Agents should be established in all parts for the introduction of the manufactures.

The manufacture of boots and shoes in this province is not extensive: thus the demand for leather is limited, and what is required is chiefly obtained from Hamburg and Berlin.

**BOOTS AND SHOES.**

The manufactory system of shoemaking is not of importance here, as machinery is but very little employed. Austria is of greater repute, machinery work having been in use for a long time. The style of boots for the working classes, both in town and country, is the shaft or leg boot reaching half way up the calf of the leg. A pair costs about 5 marks.

The Wellington boot is not much worn by the better classes, but mostly half-boots with "elastiques" made of cattle, calf, or horse leather.

The shape varies according to fashion, and the cost according to the superiority of the leather and workmanship, say from 6 to 20 marks.

There is no export of boots or shoes from here; what is manufactured is consumed on the spot, but extensive imports take place from Austria.



American boots and shoes are not known here, but if they could compete in price with others there would be a market here for them as well as for those from other countries; it would therefore be necessary to form a depot at this place so as to get the article introduced and made known. Mr. J. A. Weimberg, a member of a highly respectable and safe firm in the leather trade at Danzig, would be willing to act as agent, and to receive ready-made goods on commission at terms to be agreed upon after a first trial. Samples should therefore be sent packed in cases.

Hamburg would be the most favorable port to erect a depot for hides and skins for Germany, but of course a trial might be made direct to this place. These are sent firmly bound by cords or iron hoops.

PETER COLLAS,  
*Consular Agent.*

UNITED STATES CONSULAR AGENCY,  
*Danzig, June 30, 1885.*

## POMERANIA.

### REPORT OF VICE-CONSUL DITTMER.

#### LEATHER.

There is only one tannery in Stettin, that of Messrs. G. F. Grietzmacher Soehue, who dress mostly German hides and skins, their customers being small dealers in the neighboring towns and shoemakers at Stettin and vicinity.

Messrs. G. F. Grietzmacher Soehne obtain nearly all their hides and skins in Germany, and but very few from abroad. The cost of bullock and cow hides at the tannery is from 18 to 30 marks; that of calf-skins from 4 to 7 marks, according to size and quality.

The materials used in tanning are generally oak bark and gall-nuts, bought in Germany or imported from Hungary. At Stettin every year from two to three thousand hides are finished, which are consumed in Germany.

The import of dry hides and skins at Stettin in 1884, by sea, amounted to 5,500 kilos, against 5,604 kilos in 1883.

#### *Imports of hides and skins, 1884.*

Imported from—	Salted hides.	Undressed calf-skins.	Undressed sheep-skins.	Raw horse-hides.	Other hides and skins.
	<i>Kilos.</i>	<i>Kilos.</i>	<i>Kilos.</i>	<i>Kilos.</i>	<i>Kilos.</i>
German ports.....	160,812	20,216	10,836	4,748	764
Denmark.....	46,109	23,442	1,849		1,272
France.....	57,331				
Belgium.....	34,174				18,414
England.....	67,072			10	
Russia.....		77,709	63,670	164	5
Norway and Sweden.....			1,770		1,686
<b>Total.....</b>	<b>365,498</b>	<b>121,367</b>	<b>78,125</b>	<b>4,922</b>	<b>22,091</b>
<b>Total, 1883.....</b>	<b>253,515</b>	<b>109,904</b>	<b>86,141</b>	<b>5,297</b>	<b>10,911</b>

*Imports of leather and manufactures of 1884.*

Imported from—	Leather and leather goods.	Sole leather.	Dyed leather.	Coarse leather goods.	Fine leather goods.
	<i>Kilos.</i>	<i>Kilos.</i>	<i>Kilos.</i>	<i>Kilos.</i>	<i>Kilos.</i>
German ports .....	2,055	22,581	137	1,340	98
Denmark .....	2,177		28	655	133
Norway and Sweden .....	62			1,660	200
Russia .....	52,402		737	197	1
Netherlands .....	62				
England .....	119,478		38	9,672	110
United States .....		37,707			13
Roumania.....					1
<b>Total .....</b>	<b>176,236</b>	<b>60,288</b>	<b>940</b>	<b>13,524</b>	<b>554</b>
<b>Total, 1883 .....</b>	<b>175,987</b>	<b>72,501</b>	<b>1,546</b>	<b>8,725</b>	<b>1,257</b>

A considerable quantity of sole leather is imported from Valdivia in Chili, via Antwerp, to Hamburg, where public sales take place. These sales are attended by buyers from Berlin and Hamburg, from whom smaller dealers supply their wants.

Some ten years ago somewhat large quantities of North American hemlock leather were imported and worked up in Stettin, but it did not suit the market as well as the sole leather from Valdivia, and therefore at present only small quantities of the same are used here, but I am told it answers very well in East Prussia and on the Russian frontier.

Our Stettin dealers buy their stock of sole leather mostly at Berlin and Hamburg, and therefore the direct import from the United States in 1884 amounted, as the above table shows, to only 37,707 kilos, of which perhaps part was forwarded from here to other towns in the interior. The most important dealers in leather at Stettin are G. F. Gritzmacher Soehne, C. Rutkowsky, J. Sabatzki & Co., and J. Gloganer, who are not disinclined to enter into direct communication with manufacturers in the United States if samples are shown them and the quality and prices suit them. Mr. Franz Reiser, of 28 Frauenstrasse, Stettin, would also act as agent.

## BOOTS AND SHOES.

A few better-situated shoemakers at Stettin have machines for sewing the boot-leggins, and some persons also sell ready-made boot-leggins; however there are no factories here, but, as I am told, there are some quite large ones in Thuringia and Wurtemberg, in Germany, whence the Stettin shop-keepers of ready-made boots buy their supplies.

The style of boots generally worn by gentlemen are boots with leggins and elastics, and by ladies only elastics with high heels.

There is hardly any import of boots and shoes from any foreign country, for, as the foregoing table shows, only 13,524 kilos of coarse leather goods were imported by sea in 1884, against 8,725 kilos in 1883, and 554 kilos of fine leather goods in 1884, against 1,257 kilos in 1883. The duties on the articles, namely, 50 marks for 100 kilos on the former, and 70 marks for 100 kilos on the latter kind, are almost prohibitive, and as the wages paid to the workingmen in Germany are much smaller than those paid in the United States, there is but a poor chance for the introduction of American trade in boots and shoes. The best and cheapest way for the reanimation of the trade in American hemlocks, the article that has the best chance of suiting this market, would be to make firm

offers of this article to the better-situated dealers in leather; of course samples should be forwarded to agents or dealers in order to show the quality.

JULIUS DITTMER,  
*Vice-Consul.*

UNITED STATES CONSULATE,  
*Stettin, June 5, 1885.*

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## BRUNSWICK.

### REPORT OF CONSUL FOX.

#### LEATHER.

In this consular district the trade is chiefly carried on in Hanover, Brunswick, and Cassel, biennial leather fairs being held in these different cities, at which shoemakers, saddlers, and other consumers obtain their supplies. These fairs, especially those in this district, are yearly losing their importance, and I understand this also to be the case with those at Leipsic and Frankfort. From all that I can learn upon the subject the trade seems to have been somewhat better in 1884 than in the year preceding, though the reports, especially the one from Cassel, speak discouragingly, and refer to the fact that the price of the raw hides, not being at all in proportion to the low price of the manufactured articles, had the effect of reducing profits to a minimum. The hides were held at such a high figure that, notwithstanding the higher price of the leather, manufacturers had a hard time of it. Middlemen, dealers, as well as shoe-manufacturers, were not in position in the face of great competition in a constantly distressed market to concede leather producers a fair profit. I am unable to procure statistics for any part of 1885 full enough to form any opinion as to this year's business. I am informed, however, that the trade is suffering greatly from depression.

The number of leather dealers has increased, whereas the number of tanners has decreased. Other markets are therefore necessarily drawn upon for the local supply. Sole leather is obtained in Trier, Luxemburg, and Siegen; dressed leather (*Fahleder*) from Westphalia; calves' leather from Alsace and Germany. Importations from the United States, as far as this district is concerned, are conspicuously small. Hemlock leather was formerly used here, and, according to the general statistics, is now imported into Bremen and Hamburg from the United States. Valdivia leather is also imported from the same source. Berlin is a large consumer of certain leathers produced in this locality, which, as a rule, are sold through commission houses there.

#### HIDES AND SKINS.

The trade in hides and skins has increased materially during the past years, and the number of firms now engaged in the business are correspondingly large. It was formerly customary for the tanner to buy the skins directly from the butcher. Now the purchases are all made through dealers in open market. In consequence of the condition of the market it is impossible for large tanneries to work profitably, unless they devote themselves entirely to specialties, and the tanner being able to use only just such a class and quality of hides as are

suitable for his individual specialty, naturally has a more abundant choice at a large dealers; further, the hides obtained in this district are in part adapted only to the production of leather which is not manufactured here, but in other localities in Germany and in foreign countries. Referring to the business with the United States, the Hanover Handelskammer says:

While in 1882 America completely controlled almost the whole German market, especially in ox-hides, purchasing a larger quantity than ever before known, at the beginning of 1883 the exportation received a sudden check, owing to failures in Boston and Philadelphia, since which time only a specialty, viz, so-called "measure hides" (maasshäute) has been exported, and this article will undoubtedly be continually purchased here, at least as long as the cattle in America are branded. American beef-hides have been successfully imported into Germany, and there now seems to be but little chance of a renewal of the former extensive exportations.

The above prophecy, made in 1883, as to the continued importations of measure-hides by the United States, does not appear to have been fulfilled. It seems that this article was used mainly for making carriage-tops; it must, therefore, be inferred that either the American manufacturers have found other sources of supply or that this business has fallen off.

#### TANNING.

The chief material used in tanning is oak bark, but certain tannic extracts are often added for the purpose of expediting the process, viz, valonia from Turkey, mimosa from the Soudan and Australia, chestnut from France and America, myrobalan, quebracho, divi-divi, &c. Great attention is being paid to the use of these extracts, and the Hanover Handelskammer expresses itself as follows upon the subject:

Experiments with foreign tanning material (tannic extracts) have made further progress in the factories of Hameln and Celle. In this and other trials tanners look, perhaps, too little to science for assistance, notwithstanding the fact that the laboratory of the German Tanners' Association in Berlin, organized in 1881, affords them the best opportunity to do so. The report of the general convention of the German Tanners' Association, held in Berlin on 8th, 9th, and 10th of November, 1883, shows what a great benefit the laboratory has been and can still be to the industry. Especially worthy of note is the fact that in this convention the greatest authorities upon the subject of tanning in Germany and Austria agreed to adopt a uniform method of determining the worth of tanning materials in accordance with the Löwenthal method, and to conform the same as nearly as possible to the practice now in vogue. This unity will bring about many happy results; the differences in the analyses of chemists, which, notwithstanding the greatest care, do occur, will cease to exist.

#### BOOTS AND SHOES.

The factory system of shoemaking is not carried on in this consular district. There are, however, very large establishments in other parts of Germany, and especially in Austria, using machinery almost entirely, in Furth and Nuremberg in Bavaria, Erfurt and Weissenfels in Prussian Saxony, and in Mayence-on-the-Rhine. Prison labor is used to a great extent. The Austrian goods are known as "Vienna ware," and in all the chief cities one sees "Vienna boot and shoe bazaars." There are also depots for the sale of Erfurt, Weissenfels, and Mayence goods. The product is exported to all Europe, particularly to England, Spain, and the Orient, also to the United States. All classes and styles of boots, shoes, and slippers, from the heavy kip boots of the workmen to the finest ladies' gaiters are manufactured. They enjoy a good reputation for durability and are 25 per cent. cheaper than custom-made goods.

## AMERICAN SHOES.

I am extremely sorry to have to report that, to my knowledge, I have never seen an American boot or shoe exposed for sale in Germany. I am, however, informed that they were imported here to a small extent some years ago. The objection to them seems to be that they were too expensive for this market; they were too heavy, and on this account did not compare favorably with the German product offered at the same price, and in general they did not seem to suit the tastes of the German public.

The great barrier to an extended importation of American leather is the customs duty, although I am informed that there are objections to the leather also. Its peculiar red color is not liked, and it is said that the sole leather on account of its compactness is brittle, not as pliant, and consequently wears out sooner, and, owing to its not being as cleanly shorn, is heavier than the German. If I am correctly informed, in the main the fault lies in the tanning. If this fault is remedied and a leather produced in America of the same quality and color as that in general use here—perhaps by using similar materials for tanning—there would seem to be no doubt that our manufacturers could fairly compete in this market, notwithstanding the import duty.

WILLIAM C. FOX,  
*Consul.*

UNITED STATES CONSULATE,  
*Brunswick, August 1, 1885.*

## GREAT BRITAIN.

## ENGLAND.

Consul-General Thomas M. Waller, London.  
Consul Edward E. Lane, Tunstall.  
Consul C. B. Webster, Sheffield.  
Consul Lorin A. Lathrop, Bristol.  
Consul Howard Fox, Falmouth.

## WALES.

Consul Evan R. Jones, Cardiff.

## IRELAND.

Consul John J. Piatt, Cork.  
Consular Agent William H. Farrell, Waterford.

## LEATHER TRADE OF GREAT BRITAIN.

In transmitting the very full and exhaustive tables of imports and exports in the leather trade of Great Britain, Consul Lane says:

Table No. 1 is intended for a clearly analyzed history of the total hides, leather, and shoe trade of Great Britain from 1831 to the present time, with which is coupled saddlery and harness and unenumerated manufactures of leather; each branch of the trade set out so far as it can be arrived at, either directly or by calculations from the official books. The various years are then grouped into seven periods, and averaged as far as the figures are available and for the purpose of comparison, and showing percentage of increase or decrease. These averages are used instead of *single years*, a system which will readily commend itself to any one who wishes to handle statistics fairly and usefully. The percentages of increase or decrease since the averages for the respective periods are brought to test alongside the average for either the three or four years since 1880, as the case may be, the figures for 1884 being in some cases not attainable.\*

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\*Since this was written I have obtained the annual statement of trade for 1884, and Tables No. 1 and 2 are now complete for that year.



Table No. 2 is designed to show the share of the United States in values in the trade of Great Britain in hides, leather, and manufactures thereof since 1854, inclusive, that being the earliest year for which such a comparison can be made very complete or useful from English official sources. The classification is also more general in respect of *manufactures*. The justice or reason of this will be apparent when the column of imports of manufactures from the United States into Great Britain is examined. While it shows a respectable progress it must be considered still very meager. The imports in Table No. 1 are net imports less re-exports, but in the table under consideration, No. 2, the imports are in gross. The net imports from the United States to Great Britain—that is, imports less re-exports, cannot be given. It is necessary, therefore, in showing from British authority the share which the United States furnishes of British imports, to deal with the gross amounts both from all countries and from the United States.

The annual averages and for similar periods—so far as applicable—are appended to this table, the same as in Table No. 1. These averages are used for showing the true ratios between the British trade with all countries and with the United States and for showing the percentage of increase or decrease in the total trade, and that with the United States only.

One disturbing element in an accurate tabulation of the shoe and leather industry as defined in the circular is somewhat aggravated by the suggestion of “skins.” So far as boots and shoes and gloves are concerned there is no doubt that goat, kid, lamb, and other skins enter largely into their make up, but they are called in commercial parlance “skins,” and not “leather,” while under the head of “boots and shoes,” we find no separate classification. As the best I could do under these circumstances I have appended a small tabulated statement showing the trade in skins and manufactures thereof since 1854. It will enable American manufacturers and dealers to judge approximately to what extent the English trade in boots and shoes may seem out of proportion to the trade in leather, if it seems so at all.

In this table I have employed values only, as in Table No. 2, and for the same reason, viz, that the official figures showing quantities in the trade with the United States are too meager to be useful. •

The blank spaces in the table (No. 1) may seem rather inconsistent with the larger scope of the heading; but the latter covers the true design I had in view, viz: To embody all the statistical information possible on the lines laid down, going back as far as 1831, whenever possible. The blank spaces therefore indicate that the figures which otherwise would fill them cannot be ascertained.

It will be seen that the quantities of hides imported has been designated in hundred weights uniformly since 1831, while the exports from 1853, when first separately stated, were given in *numbers* until 1862. One feature of the table not likely to escape observation is the showing that the ratio of increase in imports of the raw material or hides has been much less, generally, than the increase in the imports of manufactured goods, either leather, boots and shoes, gloves, or manufactures unenumerated, and considerably less than the general average increase in all the imports of hides, leather, and manufactures thereof. The largest increase is shown in the imports of leather, to which increase Table No. 2 will show how much the United States has contributed. But, in the connection in which I am making use of these tables, I think leather should be treated as a partly manufactured article, especially as it embraces all hides which have passed the tanning stage.

It was not to be expected that a statement like this would show any considerable quantity of exports of raw hides, otherwise raw material, entering into an industry so extensive as the figures show the one under consideration to be in this country. We could not expect the export of raw hides from England to amount to much, and might not inconsiderately wonder how it was that any were exported at all. But these tables have been arranged with a view to analytical averages and comparisons based thereon as the best method of reaching, as nearly as possible, a demonstration of the true tendency and its degree in the way of increase or decrease in the leather and shoe industry as it exists and is carried on in this country. In pursuit of this purpose we could not well leave hides out of the reckoning. Hence I have treated the export of the raw material as a proper element of the work, although of itself it is inconsiderable in amount. The increase in the annual average exports of hides in hundred weights in the years 1881-'84 over the period 1862-'70 was 121 per cent., and over that of the succeeding ten years 40 per cent., a greater ratio than occurs in the increase of exports in any class of manufactures covered by the table, excepting leather itself, which, as before stated, ought here to rank as partly manufactured. I mention these features only because it seems particularly strange to find in the greatest manufacturing country in the world, in regard to its foreign trade, the imports of raw materials falling behind in ratio of increase while its imports of manufactured goods of the same kind, and its export of raw materials increase in a greater ratio than its exports of manufactured goods of the same kind. Dealing with the ratio of imports to exports, a valuable feature in illustrating the comparative



growth of a trade, when a great number of years are brought into the calculation and properly grouped for averages, we find that the ratio in value of imports to exports in the whole trade, including hides, has increased from 121 per cent. in 1854 to 199 per cent. in 1884.

Taking the averages for the different groups of years, we learn that the increased ratio in the same direction was from 130 per cent. in 1854-'60 to 196 per cent. in 1881-'84. The query naturally arises, Is this altered ratio caused by some abnormal growth in imports or some great relapse in exports, and, what is equally important to know, what branch of the trade is responsible for it? The trade in the raw materials seems too small to account for much of it, and we should naturally suppose that its showing, irrespective of quantity, would be on the side of an increased ratio of imports. We find, however, by reference to the table, that the ratio of imports to exports in value (as these ratios are all calculated) fell from 33.61 to 1 in 1854 to 15.56 to 1 in 1884, and from the first to the latest group of years available for comparison from 31.63 to 13.36 to 1.

So far, then, as raw hides go they help to reduce the apparent excess in the total ratio of increase in imports.

Taking leather by itself, we find the ratio of imports to exports has increased from 1.04 in 1861-'70 to 2.54 to 1 in 1881-'4, which again widens the discrepancy, and is also followed by "boots and shoes" and "all other manufactures" in the respective increased ratios of .06 to .15 as to "boots and shoes," and .06 to .63 as to "all other manufactures." The figures as to "gloves" are too meager for use, and the imports of "saddlery and harness" have never been separately stated, no doubt for the reason that very little of it has been imported. The exports of it to the United States are also very limited, and I do not see why this branch of leather manufacture is not also well worth looking after with a view of finding a market in this country.

Some of the leading facts, then, pertaining to the leather trade and industry to be drawn from the Table No. 1 are, first, that the imports into this country of manufactured goods are increasing more rapidly than the imports of the raw materials from which such goods are manufactured; second, that the exports of raw materials are increasing in a greater ratio than the exports of the articles made from such material; third, that the ratio of imports to exports is declining as to raw materials and increasing as to manufactured goods made from such materials.

It is apparent at once here that such figures are deprived of a portion of their value by the impossibility of getting at the home production of the different classes of goods covered by the inquiry, but that such an achievement is impossible will be easily understood by any one who has observed the business systems and business methods most prevalent in this country. England is as much behind the United States in its regular census statistics as she may possibly be ahead of that country in some other respects.

Table No. 2 is designed simply to show the share which the United States has in the hide and general leather and shoe trade of this country, and its growth compared with the trade with all countries. There are no special features about it not apparent at a glance. It must be remembered, however, that the imports represented in this table are gross imports, while those in Table No. 1 are net imports, less re-exports.

Table 3, relating to skins, has been prepared, as already stated, to divest as far as possible the leather statistics of that particular feature of the boot and shoe and like industries.

The exports of British and Irish manufactures, as stated in the official statistics, often include what is more properly a re-export of a foreign or colonial import. For example, the export of skins dressed which appear as British and Irish manufactures in the export tables are chiefly skins which appear in the imports of raw materials.

TABLE No. 1.—Showing imports and exports of hides, leather and manufactures thereof, in quantities and values, into and from the United Kingdom, and the ratio of imports to exports for each year from 1831 to 1884, inclusive, being the net imports and exports of British and Irish produce only.

Year.	Hides (raw).				Leather.				Boots and shoes.						
	Imports.		Exports.		Ratio of imports to exports in value.	Imports.		Exports. (c)		Ratio of imports to exports in value.	Imports.		Exports.		
	Owt.	Values.	Number.	Values.		Pounds.	Values.	Pounds.	Values.		Pairs.	Values.	Pairs.	Values.	Pairs.
1831	236,099							1,314,931	\$1,199,154						
1832	161,968							1,407,729	1,189,339						
1833	265,861							1,652,579	1,360,303						
1834	342,718							1,617,421	1,208,362						
1835	294,184							2,104,318	1,391,497						
1836	330,214							2,042,471	1,569,670						
1837	290,738							1,647,000	1,244,988						
1838	316,351							1,871,001	1,314,427						
1839	356,505							2,584,484	1,863,845						
1840	302,789							2,404,067	1,561,718						
1841	451,611							1,623,075	1,618,467						
1842	523,778							2,621,601	1,562,181						
1843	525,230							3,135,114	1,812,723						
1844	619,115							2,931,769	1,781,134						
1845	717,257							2,473,762	1,710,463						
1846	519,713							2,322,354	1,597,560						
1847	601,381							2,629,703	1,663,511						
1848	547,281							2,090,556	1,311,721						
1849	678,952							3,390,317	1,886,756						
1850	591,921							5,257,563	2,268,198						
1851	515,240							4,484,365	2,144,014						
1852	431,025							6,098,466	3,157,516						
1853	684,493							8,094,496	6,098,897						
1854	489,288	\$5,834,111	23,988	\$173,617	33.60	4,045,074	\$1,786,507	3,315,312	1,218,425	1.47		590,505	660,345	146,141	
1855	454,060	6,114,297	72,189	246,615	24.79	4,021,627	1,358,707	3,478,161	1,250,272	1.09		685,597	485,180	117,599	
1856	499,223	8,695,199	87,806	157,558	55.19	3,004,267	1,639,475	3,721,648	1,425,510	1.15		753,812	448,351	188,256	
1857	784,690	15,105,430	54,042	138,559	109.01	5,388,868	2,553,516	3,780,672	1,581,520	1.61		704,907	440,798	211,649	
1858	508,231	6,983,505	90,739	210,549	83.17	3,503,676	1,413,991	4,188,208	1,572,259	.90		806,186	660,345	165,096	
1859	614,418	10,936,543	102,420	482,340	23.21	4,370,651	1,846,267	4,743,312	1,710,151	1.05		160,248	146,141	174,688	
1860	596,757	9,725,812	129,028	593,844	16.38	4,231,097	1,679,066	5,146,512	1,962,591	.86		120,876	117,599	300,929	
1861	543,046	7,461,775	179,056	707,185	10.55	4,546,306	1,659,433	4,504,192	1,759,020	.94		175,212	211,649	458,726	

1862	656,808	8,730,934	69,971	623,744	14.00	5,038,735	1,979,668	4,824,848	1,974,135	1.00	322,108	393,899	5,375,748	\$7,969,187	.05
1863	703,216	8,590,160	80,507	675,723	12.71	4,662,667	1,980,986	5,251,232	2,145,139	.90	265,440	315,593	4,449,288	6,841,417	.05
1864	748,887	9,587,818	41,175	372,263	25.76	5,871,782	2,121,413	4,277,056	1,858,234	1.14	182,808	222,029	4,849,620	7,223,935	.03
1865	746,972	8,796,120	17,573	159,913	55.01	6,589,593	2,279,620	4,788,448	1,991,610	1.14	271,152	398,167	5,271,396	7,115,334	.06
1866	837,714	10,013,363	18,284	161,895	61.85	8,014,813	2,893,139	4,356,800	2,132,354	1.36	294,252	350,787	3,549,612	4,861,088	.07
1867	641,213	7,969,137	17,661	137,683	57.88	8,224,883	2,873,576	5,922,080	2,083,998	1.38	351,564	335,516	3,288,432	4,636,821	.07
1868	767,369	10,903,788	24,826	206,028	52.92	9,813,155	3,432,235	7,177,296	2,811,226	1.22	333,072	382,775	5,271,180	6,801,449	.06
1869	609,165	8,295,786	36,962	339,483	24.44	9,163,178	3,098,243	10,219,552	3,725,889	.83	304,380	341,166	5,235,948	6,456,833	.05
1870	853,193	12,254,757	39,941	374,443	32.73	10,513,293	3,358,800	11,624,256	4,138,934	.81	484,884	568,032	4,471,188	5,588,800	.10
1871	894,502	12,439,149	42,225	409,466	26.50	16,683,055	5,165,614	15,666,672	5,532,159	.93	326,304	431,206	6,083,136	7,986,766	.05
1872	967,103	15,963,604	47,929	516,630	29.11	23,116,871	7,381,171	15,570,128	5,911,904	1.24	390,504	521,443	6,949,560	8,249,924	.06
1873	946,682	15,747,575	45,249	503,718	26.52	27,662,735	8,397,165	13,041,840	5,104,516	1.65	360,768	517,333	6,332,328	8,311,427	.06
1874	876,639	14,760,425	45,128	597,119	24.72	24,370,683	8,560,776	16,603,552	6,420,680	1.33	473,436	628,304	4,921,368	6,688,041	.09
1875	823,978	13,629,650	43,395	496,441	27.45	36,039,539	11,454,135	18,832,464	7,279,461	1.57	866,820	951,390	5,554,080	7,383,780	.13
1876	756,425	10,977,291	43,703	429,960	25.53	38,023,582	12,493,248	16,790,032	5,894,042	2.10	1,080,756	1,247,878	5,319,516	6,832,931	.18
1877	790,335	11,316,520	51,554	459,373	24.63	37,761,871	11,401,572	16,176,272	5,670,124	2.01	968,544	1,347,359	5,233,992	6,503,970	.21
1878	750,700	10,422,101	62,572	526,161	19.81	40,196,426	10,340,198	18,030,320	5,729,243	1.80	967,140	1,400,875	5,163,276	6,403,005	.22
1879	556,658	7,326,514	104,973	845,357	8.28	27,162,722	8,432,369	24,637,689	7,335,893	1.15	944,136	1,514,469	5,260,488	6,381,407	.24
1880	806,013	11,755,240	105,261	946,223	12.42	39,870,767	12,580,369	16,463,776	5,609,420	2.24	793,680	1,321,468	5,042,268	6,239,924	.21
1881	621,455	8,970,497	99,092	950,589	9.44	45,692,746	13,697,757	20,312,320	7,123,607	1.92	674,508	1,366,878	6,651,060	7,704,788	.18
1882	767,163	11,034,156	71,558	654,466	16.86	61,258,628	20,395,764	18,536,336	7,038,657	2.90	731,040	1,193,815	7,612,848	9,063,744	.13
1883	643,430	9,499,856	77,322	712,869	13.33	61,367,325	21,410,619	19,636,736	7,967,710	2.69	964,464	1,216,415	6,157,608	7,504,493	.16
1884	735,793	10,401,832	72,458	608,676	15.55	64,673,363	21,447,318	19,878,208	8,164,454	2.63	855,792	924,591	6,318,528	7,676,631	.12

ANNUAL AVERAGES.

1831-'40	289,742							1,864,600	\$1,890,325						
1841-'50	577,623							2,943,581	1,721,271						
1851-'60	555,540							4,705,115	2,212,115		354,321	\$285,384			
1854-'60		\$8,927,857	182,900	\$279,012	31.99	4,080,751	\$1,753,924								
1861-'70	710,758	9,260,361	137,433	375,836	24.64	7,244,321	2,567,714	6,204,576	2,462,053	1.04	320,970	376,865	4,640,268	\$6,388,824	.06
1871-'80	818,903	12,433,789	159,198	595,044	20.90	31,089,375	9,620,663	17,181,274	6,051,744	1.59	717,208	988,472	5,580,001	7,036,118	.14
1881-'83, '84	691,960	9,976,585	182,657	996,645	13.36	58,248,015	19,237,864	19,590,900	7,576,107	2.54	806,451	1,175,425	6,685,011	7,987,414	.15

PER CENT OF INCREASE OR DECREASE.

1831-'40	k139							k951	k445						
1841-'50	20							k568	k340						
1851-'60	25							k316	k242		k128	k312			
1854-'60		k12													
1861-'70	13	k8						k216	k208		k151	k212	k44	k25	
1871-'80	115	k20						k14	k25		k12	k19	k20	k14	

a Cannot be given separately until 1854. b Cannot be given separately until 1853. c Cannot be given separately until 1851. After 1881 includes goat and kid and sheep and lamb skins, tanned or dressed. d Cannot be given separately until 1854. After 1881 includes goat and kid and sheep and lamb skins, tanned or dressed. e Until 1854 exports of leather includes various manufactures. f Cannot be given separately until 1848. g Cannot be given separately until 1849. h Cannot be given separately until 1862. i Number. j Cwt. k Increase. l Decrease.



1862.....	6,849,312	3,611,006	Pairs. 489,638	257,796	14.01	1,672,192	470,313	596,847	.79	15,185,821	18,093,854	1.16
1863.....	8,043,708	4,240,678	562,513	272,704	15.55	1,662,727	394,498	433,371	.91	15,521,916	12,027,075	1.29
1864.....	10,078,704	5,313,269	696,045	349,950	15.18	1,683,565	308,925	604,337	.51	17,553,485	12,092,284	1.45
1865.....	9,165,948	4,832,332	458,134	239,173	21.09	1,705,859	572,982	940,242	.61	16,879,222	12,142,131	1.29
1866.....	10,565,556	5,784,458	680,664	326,279	17.73	1,228,713	365,523	1,332,817	.27	19,407,271	10,043,147	1.93
1867.....	10,854,108	6,038,713	573,275	291,513	20.72	1,069,666	291,508	966,014	.30	17,510,441	9,175,693	1.91
1868.....	10,681,632	6,004,588	494,066	240,020	25.27	1,329,274	301,319	679,285	.44	21,084,685	12,067,283	1.75
1869.....	10,963,132	5,790,856	774,826	387,928	14.93	1,564,657	279,921	667,221	.42	17,805,472	13,142,012	1.35
1870.....	10,831,176	5,710,249	983,257	497,853	11.47	1,590,143	300,745	962,058	.31	22,192,583	13,152,232	1.69
1871.....	13,064,784	6,218,496				2,659,785	529,329	2,180,850	.24	24,759,462	18,209,032	1.36
1872.....	12,494,736	6,761,797				1,778,993	607,037	1,831,950	.33	31,236,716	18,349,401	1.70
1873.....	11,577,864	6,279,766				2,215,143	852,470	1,483,786	.57	31,794,119	17,708,590	1.80
1874.....	13,411,922	7,478,574				2,255,447	1,197,816	1,906,675	.63	32,625,897	17,867,963	1.83
1875.....	22,533,720	11,787,266				2,360,656	1,420,249	1,963,806	.76	39,242,692	19,384,146	2.02
1876.....	17,816,628	8,892,088				1,934,731	1,059,972	1,604,840	.65	34,570,477	16,696,504	2.07
1877.....	14,645,640	7,255,514				1,713,991	1,781,402	1,485,134	1.20	33,102,366	15,832,593	2.09
1878.....	12,725,256	6,177,272				1,953,622	2,932,840	1,390,636	2.11	31,273,287	16,002,619	1.98
1879.....	12,445,560	6,108,460				2,063,639	1,191,738	1,573,261	.76	24,573,600	18,239,559	1.35
1880.....	17,053,224	8,278,827				2,123,609	1,244,534	1,823,156	.68	35,180,440	16,742,842	2.10
1881.....	14,708,820	7,136,630				2,303,046	1,413,392	1,981,371	.71	32,585,154	20,063,382	1.62
1882.....	19,016,604	9,169,625				2,365,638	1,528,071	2,338,451	.65	43,321,432	21,460,856	2.02
1883.....	19,594,392	9,201,456				2,069,626	1,101,177	2,054,695	.64	42,429,525	19,468,886	2.09
1884.....	17,188,788	7,696,657				1,853,236	907,364	1,661,812	.54	41,377,761	20,024,810	2.06

ANNUAL AVERAGE.

1831-'40.....	1,326,969					\$377,837						
1841-'50.....	2,155,238					505,948						
1851-'60.....	3,509,335	\$1,250,020	e 35,981	\$140,105	8.92	1,298,778						
1854-'60.....			f 634,435	307,720	16.44		\$365,890	\$5,813,169	.06	\$12,863,792	\$9,207,269	1.30
1861-'70.....	9,461,322	5,057,847				1,500,449	363,068	1,437,860	.25	17,626,062	11,833,061	1.50
1871-'80.....	14,776,933	7,523,806				2,105,961	1,281,738	1,714,409	.75	31,835,904	17,503,274	1.82
1881, 1883, and 1884.....	17,627,151	8,301,092				2,152,861	1,237,501	2,009,082	.61	46,033,866	20,132,509	1.99

PER CENT. OF INCREASE OR DECREASE.

1831-'40.....	g 1,229					g 470						
1841-'50.....	g 717					g 325						
1851-'60.....	g 402	g 564				g 66						
1854-'60.....							g 238	h 65		g 211	g 119	
1861-'70.....	g 86	g 64				g 43	g 241	g 40		g 127	g 71	
1871-'80.....	g 20	g 10				g 2	g 3	g 17		g 26	g 15	

a Cannot be given separately until 1849.

d After 1870 included with "All other manufactures of leather."

b Cannot be given separately until 1848.

e Pounds.

f Pairs.

g Increase.

h Decrease.

c Cannot be given separately until 1854.

TABLE No. 2.—Showing in values the share of the United States in the imports into and exports from the United Kingdom of hides, leather, and manufactures thereof, from 1854 to 1884-'85, inclusive.

Year.	Hides, raw.				Leather.			
	Imports.		Exports.		Imports.		Exports.	
	From all countries.	From United States.	To all countries.	To United States.	From all countries.	From United States.	To all countries.	To United States.
				Percentage of total to United States.				Per cent. of total from United States.
								Per cent. of total to United States.
1854.....	\$7,367,993	\$182,888	\$173,617	28	\$1,851,620	\$46,222	\$1,218,425	\$514,306
1855.....	8,679,067	33,831	246,615	2	1,449,613	98,955	1,250,272	357,765
1856.....	11,935,612	639,715	157,558	8	1,231,584	18,239	1,425,510	538,853
1857.....	12,245,063	38,518	138,559	45	2,662,216	312,789	1,581,520	240,872
1858.....	10,519,723	225,489	210,549	5	1,548,661	37,374	1,572,259	300,842
1859.....	14,415,644	894,282	432,340	5	2,001,056	158,838	1,710,151	488,051
1860.....	14,207,506	520,307	593,844	4	1,835,969	318,473	1,962,591	447,908
1861.....	12,265,974	158,781	707,165	4	1,806,887	284,768	1,759,020	100,323
1862.....	13,434,075	135,380	623,744	4	2,081,139	225,684	1,974,135	97,656
1863.....	13,551,363	357,439	675,723	18	2,102,036	96,157	2,145,139	186,017
1864.....	12,981,316	199,006	372,263	2	2,258,684	170,609	1,858,234	166,191
1865.....	12,357,294	42,596	159,913	14	2,452,622	191,915	1,991,610	422,349
1866.....	13,193,261	10,550	161,895	8	3,069,292	150,161	2,132,354	430,967
1867.....	11,968,110	48,860	137,683	6	3,019,765	140,077	2,083,996	258,902
1868.....	14,059,839	74,550	206,028	3	3,577,933	89,636	2,811,226	339,895
1869.....	12,742,998	232,361	339,483	3	3,310,427	237,573	3,725,889	351,356
1870.....	18,698,626	378,083	374,443	4	5,725,676	1,373,934	4,138,934	406,518
1871.....	18,780,135	546,883	460,466	4	8,671,733	2,414,305	5,532,159	369,032
1872.....	23,939,588	1,865,135	546,630	2	9,600,802	3,210,761	5,941,904	433,094
1873.....	25,004,558	1,985,863	593,718	2	10,895,378	3,179,927	5,104,516	352,768
1874.....	22,349,786	2,243,311	597,119	11	13,694,535	5,755,283	6,420,680	328,065
1875.....	20,455,705	1,442,761	496,441	9	14,492,018	6,173,423	7,279,461	256,046
1876.....	16,070,584	974,594	429,060	6	14,474,288	5,308,432	5,894,042	274,602
1877.....	17,256,078	216,359	459,373	1	13,971,974	5,878,332	5,670,124	331,506
1878.....	16,590,214	88,181	526,161	1	10,753,407	4,032,956	5,729,243	233,173
1879.....	14,193,522	226,317	885,357	1	14,867,245	5,825,867	7,335,893	867,114
1880.....	18,879,986	249,077	946,223	2	15,346,605	5,521,073	5,609,420	69,021
1881.....	15,636,643	282,763	950,569	2	25,659,424	6,814,312	7,123,607	338,703
1882.....	18,223,490	428,963	654,466	2	26,602,231	6,478,226	7,038,657	338,883
1883.....	18,506,628	448,268	712,969	2	20,366,682	7,001,395	7,967,710	678,487
1884.....	18,888,585		668,676	11	13,885,321	3,582,021	8,164,453	
1885.....								



ANNUAL AVERAGES.

1854-'60 .....	\$11, 838, 658	\$335, 787	3	\$279, 012	\$66, 517	13	\$1, 797, 246	\$142, 984	8	\$1, 531, 533	\$412, 657	27
1861-'70 .....	18, 525, 285	178, 083	1	375, 836	31, 514	8	2, 729, 187	201, 057	7	2, 462, 053	276, 017	11
1871-'80 .....	19, 152, 015	906, 748	5	596, 044	101, 843	17	11, 714, 705	4, 815, 322	37	6, 051, 744	353, 442	6
1881-'84 .....	17, 813, 836	352, 208	2	746, 645	225, 841	30	23, 498, 735	6, 453, 751	27	7, 573, 607	493, 520	6

PER CENT. OF INCREASE OR DECREASE.

Since 1854-'60 .....	*57	*5	.....	*168	*518	.....	*1, 207	*4, 408	.....	*394	*19	.....
1861-'70 .....	*32	*97	.....	*30	*617	.....	*761	*3, 102	.....	*207	*79	.....
1871-'80 .....	†7	†64	.....	*25	*122	.....	*100	*49	.....	*25	*40	.....

\* Increase.

† Decrease.

TABLE No. 2.—Showing in values the share of the United States in the imports into and exports from the United Kingdom, &c.—Continued.

Year.	Manufactures of leather.					Total hides, leather, and manufactures thereof.				
	Imports.		Exports.		Per cent. of total to United States.	Imports.		Exports.		Per cent. of total to United States.
	From all countries.	From United States.	To all countries.	To United States.		From all countries.	From United States.	To all countries.	To United States.	
1854.....	\$1,692,739	.....	\$6,102,606	\$100,620	2	\$10,912,352	\$46,232	\$7,494,648	\$662,759	8
1855.....	1,557,294	.....	4,306,667	100,892	2	11,685,974	281,488	5,803,564	464,613	9
1856.....	2,133,386	.....	7,122,259	194,830	3	15,300,582	52,070	8,706,836	746,749	5
1857.....	2,356,651	\$1,479	9,580,273	314,600	3	19,263,933	953,983	11,280,352	555,472	5
1858.....	2,359,683	1,693	8,223,596	94,405	1	14,428,067	77,565	10,006,210	489,233	5
1859.....	3,014,529	.....	8,066,763	200,938	2	19,431,229	384,327	10,209,255	710,732	7
1860.....	3,600,219	.....	8,395,092	183,204	2	19,643,694	1,212,755	10,951,528	631,112	6
1861.....	4,078,730	.....	8,928,095	79,406	1	18,151,591	805,075	11,394,301	179,729	2
1862.....	4,525,850	.....	10,495,975	71,980	1	20,041,084	385,465	13,083,854	191,691	3
1863.....	5,335,781	.....	9,210,221	121,283	1	20,989,180	231,537	12,027,676	434,345	3
1864.....	5,934,453	.....	9,861,787	165,202	2	21,174,463	528,048	12,092,284	340,099	5
1865.....	5,983,207	.....	9,990,608	154,983	2	20,743,154	390,921	12,142,131	599,672	7
1866.....	6,584,437	.....	7,262,249	291,751	4	22,846,990	192,757	10,043,147	722,718	6
1867.....	6,757,554	.....	6,954,014	271,419	4	21,745,429	150,627	9,175,693	541,241	4
1868.....	6,942,368	.....	9,050,020	187,842	2	24,580,140	472,853	12,067,285	527,737	5
1869.....	6,551,267	.....	9,076,640	256,518	3	22,604,712	164,186	13,142,012	626,804	7
1870.....	6,729,883	.....	8,638,856	440,335	5	29,041,087	469,984	13,152,232	857,564	6
1871.....	7,710,628	.....	12,207,406	505,137	4	32,216,489	1,752,017	18,209,032	891,598	5
1872.....	8,244,089	80,501	11,860,867	490,611	4	40,855,410	3,041,660	18,249,401	945,438	5
1873.....	7,916,686	30,138	12,010,356	293,075	2	40,522,046	5,106,034	17,708,590	655,196	4
1874.....	9,516,046	94,678	10,850,163	336,299	3	42,761,210	5,260,468	17,867,963	678,975	5
1875.....	14,498,111	49,098	11,608,242	156,122	1	48,648,351	8,047,692	19,384,146	472,911	2
1876.....	11,602,442	63,269	10,372,501	125,745	1	42,255,044	7,679,453	16,696,504	319,694	3
1877.....	10,981,853	*148,423	9,708,095	80,988	1	42,662,219	6,431,449	15,832,593	487,594	3
1878.....	11,116,409	98,946	9,747,264	85,864	1	41,678,597	6,193,637	16,002,619	362,839	2
1879.....	9,865,072	92,157	10,018,308	178,843	2	34,812,001	4,213,294	18,239,559	1,333,809	7
1880.....	11,693,825	48,006	10,186,694	286,749	3	45,441,056	6,100,790	16,742,842	800,485	5
1881.....	10,700,548	76,219	11,989,206	335,044	3	41,688,796	5,846,369	20,063,382	1,141,014	6
1882.....	13,107,596	112,260	12,767,782	870,467	3	56,990,510	7,209,385	21,461,856	935,000	4
1883.....	12,694,163	101,164	11,648,814	286,863	2	57,808,022	7,008,853	19,468,896	1,042,019	5
1884.....	10,876,476	68,919	11,191,679	185,073	1	64,181,743	7,518,582	20,024,806	935,857	4
1885.....	4,582,698	.....	7,425,869	.....	.....	18,468,021	3,582,021	.....	.....	.....

ANNUAL AVERAGES.

1854-'60 .....	\$2,387,786	.....	.....	\$7,396,751	\$169,927	2	\$15,809,404	\$429,775	3	\$9,207,269	\$608,670	6
1861-'70 .....	5,937,355	.....	.....	8,946,846	204,072	2	22,191,780	379,140	2	11,833,061	502,150	4
1871-'80 .....	10,318,516	.....	1	10,856,489	253,943	2	41,185,237	5,362,652	13	17,503,274	694,353	4
1881-'84 .....	11,844,696	.....	1	12,149,358	294,112	2	53,152,268	6,895,000	13	20,254,733	1,013,472	5

PER CENT. OF INCREASE OR DECREASE.

Since 1854-'60 .....	*395	.....	.....	*64	*73	.....	*236	*1,505	.....	*120	*66	.....
1861-'70 .....	*100	.....	.....	*36	*44	.....	*140	*1,720	.....	*71	*102	.....
1871-'80 .....	*14	.....	*14	*12	*16	.....	*29	*28	.....	*16	*46	.....

\* Imports of "boots and shoes" from United States were not separately stated until 1877, when they amounted to \$77,441; they were again dropped after 1878, amounting that year to \$30,065.  
† Increase.

TABLE No. 3.—Showing the imports and exports in value of skins (not being furs dressed and undressed) and manufactures thereof into and from the United Kingdom from 1854 to 1883, inclusive, with the percentage ratio of imports to exports of each class in each year.

Year.	Skins undressed.			Skins dressed and manufact- ures thereof.			Total skins and manufact- ures thereof.		
	Imports.	Exports.	Ratio of imports to exports.	Imports.	Exports.	Ratio of imports to exports.	Imports.	Exports.	Ratio of imports to exports.
1854.....	9729, 182	5579, 138	1.76	34, 551	(f)	.....	\$1, 283, 703	\$579, 138	.....
1855.....	332, 374	418, 792	1.84	18, 261	\$683, 315	1.05	1, 070, 638	1, 104, 107	1.07
1856.....	1, 084, 810	684, 204	1.56	13, 504	990, 547	.83	1, 897, 814	1, 674, 751	1.19
1857.....	1, 082, 378	382, 604	2.83	35, 020	1, 112, 098	.84	2, 017, 396	1, 494, 792	1.35
1858.....	928, 022	379, 981	2.44	74, 640	638, 992	1.23	1, 702, 063	1, 098, 913	1.55
1859.....	1, 431, 724	447, 621	3.20	85, 293	912, 196	1.19	2, 517, 017	1, 350, 817	1.85
1860.....	1, 111, 582	435, 011	2.56	38, 532	979, 782	1.18	2, 350, 114	1, 414, 798	1.66
1861.....	1, 056, 857	297, 888	3.55	39, 492	1, 048, 129	.88	2, 788, 249	1, 247, 007	2.24
1862.....	622, 784	488, 981	1.29	34, 331	1, 074, 885	1.03	1, 927, 615	1, 583, 816	1.22
1863.....	732, 489	1, 006, 061	.73	70, 799	745, 066	1.71	2, 053, 288	1, 745, 127	1.18
1864.....	851, 385	780, 348	1.09	34, 482	536, 872	2.49	2, 185, 687	1, 317, 320	1.66
1865.....	914, 819	1, 085, 223	.86	36, 788	535, 790	2.59	2, 481, 608	1, 721, 012	1.44
1866.....	1, 456, 706	1, 395, 691	1.10	19, 178	742, 054	2.32	3, 205, 885	2, 025, 445	1.58
1867.....	1, 630, 579	917, 924	1.77	16, 159	750, 386	2.73	3, 676, 736	1, 958, 290	2.29
1868.....	852, 799	1, 071, 890	.78	28, 648	671, 645	2.87	2, 781, 442	1, 743, 535	1.58
1869.....	790, 909	1, 130, 128	.72	77, 032	575, 829	2.68	3, 097, 961	1, 975, 865	1.57
1870.....	1, 297, 394	1, 249, 315	1.04	32, 074	796, 948	3.18	3, 329, 498	2, 040, 763	1.63
1871.....	3, 752, 340	2, 628, 148	2.19	23, 981	649, 187	5.83	7, 976, 221	3, 277, 815	2.43
1872.....	6, 890, 948	2, 907, 695	2.37	19, 215	1, 402, 730	1.30	8, 229, 168	4, 310, 425	1.91
1873.....	7, 885, 823	3, 580, 980	2.20	18, 518	1, 050, 675	2.65	10, 694, 338	4, 630, 805	2.31
1874.....	5, 413, 232	3, 980, 275	1.37	18, 607	1, 886, 163	3.07	9, 811, 839	5, 320, 438	1.86
1875.....	5, 045, 368	3, 354, 838	1.50	18, 818	1, 262, 247	3.99	8, 903, 088	4, 607, 085	1.93
1876.....	5, 188, 767	2, 642, 670	1.96	17, 289	1, 502, 843	3.31	8, 701, 008	4, 145, 513	2.10
1877.....	4, 441, 372	2, 885, 724	1.55	10, 487	1, 218, 508	3.65	8, 391, 358	4, 084, 322	2.05
1878.....	3, 626, 613	2, 589, 338	1.40	15, 066	2, 432, 924	1.05	8, 361, 679	5, 022, 262	1.66
1879.....	2, 879, 138	3, 260, 788	.88	11, 682	3, 455, 820	1.11	6, 790, 795	6, 718, 417	1.00
1880.....	4, 401, 000	4, 721, 836	.93	19, 655	3, 277, 846	1.18	8, 110, 655	7, 999, 782	1.01
1881.....	3, 626, 939	4, 311, 004	.84	17, 400	4, 889, 758	1.17	8, 784, 339	8, 700, 763	1.01
1882.....	4, 942, 427	4, 414, 154	1.12	1, 197, 787	3, 074, 209	.39	8, 140, 194	7, 488, 463	.83
1883.....	4, 509, 636	2, 964, 652	1.53	2, 236, 001	4, 120, 201	.54	6, 745, 937	7, 098, 852	.95

## ANNUAL AVERAGES.

1854-'60..	859, 934	461, 050	208	357, 114	884, -81	97	1, 817, 049	1, 219, 400	149
1860-'70..	1, 046, 672	925, 882	113	1, 651, 950	789, 654	209	2, 698, 622	1, 715, 517	157
1871-'80..	3, 101, 859	3, 249, 244	157	3, 513, 274	1, 781, 773	200	8, 618, 134	5, 011, 917	172
1861-'63..	4, 859, 787	3, 896, 603	112	3, 863, 723	3, 864, 428	74	2, 223, 490	7, 761, 026	88

## PER CENT. OF INCREASE OR DECREASE.

1854-'60..	\$ 354	\$ 745	.....	\$ 234	\$ 237	.....	\$ 297	\$ 586	.....
1861-'70..	\$ 316	\$ 321	.....	\$ 78	\$ 390	.....	\$ 164	\$ 353	.....
1871-'80..	15	\$ 17	.....	18	\$ 119	.....	16	\$ 56	.....

\*Until 1871 re-exports of undressed skins included skins tanned or dressed. This makes the net imports appear relatively too small previous to that date.

†Included with manufactured goods unenumerated.

‡Until 1877 imports of skins dressed unenumerated included skins undressed unenumerated.

§ Increase.

|| Decrease.

The following tables of imports and exports of hides and leather were transmitted by Consul Lathrop, of Bristol:

*Imports of hides into the United Kingdom in 1884, showing the countries whence imported*

From—	Dry hides.		Wet hides.	
	Quantity.	Value.	Quantity.	Value.
	<i>Cwts.</i>		<i>Cwts.</i>	
Russia.....	10, 027	\$281, 321	2, 025	\$25, 000
Sweden.....	326	8, 966	1, 808	25, 417
Norway.....	1, 009	22, 302	2, 120	27, 697
Denmark.....	1, 070	36, 488	5, 470	70, 474
Germany.....	10, 117	243, 996	27, 566	332, 302
Holland.....	10, 506	177, 380	22, 558	277, 029
Belgium.....	2, 621	45, 280	75, 859	1, 065, 686
France.....	2, 157	33, 920	60, 768	821, 500
Portugal.....	453	8, 738	14, 819	218, 845
Italy.....	583	11, 469	24, 506	331, 899
Malta.....	2, 952	49, 868		
British Possessions in South Africa.....	56, 640	1, 068, 402	26, 481	356, 296
East Coast Africa.....	1, 900	32, 241		
Mauritius.....	3, 404	50, 208		
Aden.....	4, 168	67, 714		
Bombay and Soinde.....	87, 892	552, 722		
Madras.....	4, 035	63, 515		
Bengal and Burmah.....	848, 841	6, 303, 531		
Straits Settlements.....	65, 158	827, 935		
Java.....	11, 397	159, 135		
Cochin China.....	6, 683	69, 915		
China and Hong-Kong.....	34, 394	541, 083		
Japan.....	1, 156	17, 019		
Australasia.....	4, 829	56, 390	69, 917	762, 441
United States.....	4, 119	76, 457	29, 420	371, 211
Other countries.....	19, 638	339, 675	3, 713	45, 086
Channel Islands.....			2, 710	23, 779
British India.....			1, 927	34, 768
British West Indies.....			6, 747	84, 923
Brazil.....			76, 032	1, 085, 291
Uruguay.....			97, 170	1, 462, 101
Argentine Republic.....			18, 710	280, 261
Falkland Islands.....			1, 256	15, 406
Total.....	646, 165	11, 145, 670	571, 582	7, 617, 421

*Imports of tanning substances into the United Kingdom from the different foreign countries during the year 1884.*

## BARK.

Countries from which imported.	Quantity.	Value.
	<i>Cwts.</i>	
Sweden.....	19, 774	\$20, 782 76
Germany.....	2, 348	7, 882 92
Holland.....	20, 494	25, 782 30
Belgium.....	82, 562	109, 129 08
France.....	8, 304	9, 958 14
Algeria.....	28, 770	45, 693 72
China.....	4, 120	11, 178 00
Australasia.....	209, 432	624, 850 20
United States.....	52, 014	85, 283 28
Other countries.....	10, 318	15, 576 30
Total.....	433, 186	956, 066 70

Imports of tanning substances into the United Kingdom, &c.—Continued.

CUTCH AND GAMBIER.

Countries from which imported.	Quantity.	Value.
	<i>Tons.</i>	
France.....	258	\$26,710 56
Bombay and Scinde.....	1,106	137,270 70
Bengal and Burmah.....	8,836	1,128,302 46
Straits Settlements.....	21,421	2,619,063 72
China.....	263	33,048 00
United States.....	198	28,149 12
Other countries.....	137	17,602 92
Total.....	32,219	3,900,147 48

SUMAC.

Countries from which imported.	Quantity.	Value.
	<i>Tons.</i>	
France.....	489	\$34,481 70
Spain.....	142	8,548 74
Italy.....	10,246	711,465 12
Austria.....	675	89,234 78
Other countries.....	152	11,236 32
Total.....	11,704	804,966 66

VALONIA.

Countries from which imported.	Quantity.	Value.
	<i>Tons.</i>	
Holland.....	177	\$17,010 00
Greece.....	4,054	271,372 68
Turkey.....	30,198	2,245,572 72
Other countries.....	18	1,122 66
Total.....	34,447	2,535,078 66

EXTRACTS.

Countries from which imported.	Value.
Denmark.....	\$11,129 40
Germany.....	170,848 44
Holland.....	6,755 40
Belgium.....	56,337 12
France.....	1,108,886 76
Italy.....	13,403 88
Austria.....	118,530 54
British North America.....	191,751 30
United States.....	336,346 02
Spanish West Indies.....	6,269 40
Other countries.....	8,951 18
Total.....	2,024,209 44

There is also an import from various countries of various unenumerated substances used in tanning or dyeing, to the annual value of about \$1,750,000.



*Imports of undressed leather into the United Kingdom in 1884, showing the countries whence imported.*

Countries from which imported.	Quantities.	Value.
	<i>Pounds.</i>	
Germany .....	112, 672	\$20, 941
Holland .....	63, 132	14, 667
Belgium .....	69, 501	19, 158
France .....	66, 714	22, 929
Spain .....	23, 778	9, 904
Turkey .....	47, 792	11, 868
Aden .....	108, 434	37, 830
Bombay and Scinde .....	4, 457, 226	1, 660, 841
Madras .....	16, 077, 392	5, 977, 537
Bengal and Burmah .....	1, 128, 744	363, 367
Straits Settlements .....	5, 813, 209	969, 049
Ceylon .....	77, 230	27, 507
China and Hong-Kong .....	96, 879	22, 676
Australasia .....	12, 008, 548	2, 878, 343
British North America .....	334, 249	84, 432
United States .....	16, 957, 564	3, 710, 109
Other countries .....	61, 903	20, 460
Total .....	57, 555, 057	15, 866, 627

*Imports of varnished, japanned, or enameled leather into the United Kingdom in 1884, showing the various countries whence imported.*

Countries from which imported.	Quantities.	Value.
	<i>Pounds.</i>	
Russia .....	30, 491	\$32, 712
Germany .....	22, 795	20, 601
Holland .....	205, 795	336, 171
France .....	84, 549	156, 769
United States .....	147, 280	160, 909
Other countries .....	5, 737	5, 953
Total .....	496, 647	713, 115

LONDON.

REPORT OF CONSUL-GENERAL WALLER.

EXTENT AND CONDITION.

The following statistics, obtained and compiled from the Leather Trade Directory of England and from the annual customs statement of the trade of the United Kingdom, show, in a general way, the extent and condition of the leather industry in this country.

In 1880 there were in England, Scotland, and Wales—

Harness-makers .....	23, 866
Tanners and fellmongers .....	10, 248
Curriers .....	15, 551
Leather-goods makers .....	5, 370
Engaged in boot and shoe making .....	216, 556

The yearly production of hides in England, Scotland, and Wales is estimated to be:

Cattle hides and skins .....	2, 655, 690
Sheep and lambs .....	7, 344, 196
Horse-hides .....	776, 123
Imported .....	1, 590, 365
Total .....	12, 366, 374

*Number of firms engaged in different branches of the leather trade in London and suburbs.*

Occupations.	No.	Occupations.	
Army accouterment manufacturers . . .	55	Eyelet manufacturers . . . . .	7
Auctioneers . . . . .	5	Fur and skin dressers . . . . .	34
Bark analysts . . . . .	1	Fur and skin dyers . . . . .	15
Bark factors . . . . .	25	Fur and skin merchants . . . . .	52
Bark manufacturers . . . . .	15	Furriers, wholesale . . . . .	127
Blacking manufacturers . . . . .	89	Furriers, retail . . . . .	185
Boot and shoe factors . . . . .	24	Glue manufacturers . . . . .	28
Importers . . . . .	14	Gundery dealers . . . . .	126
Wholesale manufacturers . . . . .	406	Harness makers, wholesale . . . . .	32
Warehouses and dealers . . . . .	4, 248	Hide and skin brokers . . . . .	9
Upper manufacturers . . . . .	37	Hide and skin factors . . . . .	26
Finishing-ink makers . . . . .	4	Hide and skin merchants . . . . .	56
Boot front blockers . . . . .	3	Horn and hoof merchants . . . . .	29
Boot importers . . . . .	7	Imitation leather manufacturers . . . . .	4
Boot-knife manufacturers . . . . .	3	Last-makers, iron and wood . . . . .	41
Boot-lace manufacturers . . . . .	14	Leather driers . . . . .	25
Boot-lining manufacturers . . . . .	2	Leather embossers . . . . .	35
Boot machinists . . . . .	44	Leather factors . . . . .	83
Peg importers . . . . .	1	Leather dressers and manufacturers . . . . .	300
Rosette makers . . . . .	7	Leather importers . . . . .	64
Screw, rivet, and tack manufacturers . . . . .	5	Leather merchants . . . . .	308
Silk twist manufacturers . . . . .	3	Bag manufacturers . . . . .	115
Thread manufacturers . . . . .	16	Dye makers . . . . .	9
Tip and steel plate manufacturers . . . . .	2	Legging and garter makers . . . . .	43
Bridle cutters . . . . .	22	Machine band manufacturers . . . . .	62
Bridle-bit makers . . . . .	15	Saddlers, wholesale . . . . .	40
Curriers . . . . .	119	Saddlers, retail . . . . .	483
Dubbin manufacturers . . . . .	20	Tanners . . . . .	65
Elastic-web makers . . . . .	17		

### IMPORTS.

Notwithstanding the general commercial depression, the imports of leather into Great Britain are on the increase. Since 1880 the amount has grown from 60,248,678 pounds to 76,875,971 pounds in 1884. Hides have decreased from 1,241,788 hundredweight in 1880 to 1,217,747 in 1884, the values, respectively, being £4,511,699, £5,417,997, and £3,879,582, £3,881,349. Of the 646,165 hundredweight of dry hides, about two-thirds come from Bengal, Burmah, and the Straits Settlements, while of the 571,582 hundredweight of wet hides, Uruguay, Brazil, Belgium, Australasia, and France contribute in the order named. The large imports from European countries are for the most part transshipments of South American hides. Last year the United States exported to Great Britain 29,420 hundredweight of wet and 4,119 hundredweight of dry hides. In leather, undressed, British India exported the largest, 27,560,801 pounds out of 57,555,057 pounds, Madras being the principal export point. The United States was next, with 16,957,564 pounds, Australia following with 12,018,544 pounds. In dressed leather, the United States furnished, out of a total import of 18,824,267 pounds, more than one-half, viz, 9,862,370 pounds, as against 4,745,940 pounds from France; Holland and Germany being equal competitors for the third place.

In comparing the American and French exports, it will be found that the value of the French leather was twice as much per pound as the American. In varnish, japanned, and enameled leather, out of 469,647 pounds (value £146,732), Holland came first with 205,795 pounds (value £69,171), the United States second with 147,280 pounds (value £33,109), and France third, 84,549 pounds (value £33,109). France exports grades of this variety of leather, the import price of which is twice as much per pound as that exported from the United States. It is said by leather merchants here that in this branch of the leather trade the United

States have, of late years, been making great progress, especially in “patent” leather, which depends upon sunshine so much for its “non-crackable” qualities. At present the best qualities come from France and Germany. American japanned and enameled leather, for the numerous purposes for which they are used, have a good reputation in London, and the trade is one that might, it would seem, be easily increased.

EXPORTS.

The total value of tanned unwrought leather was £1,677,685—177,484 hundredweight having been exported, the United States taking 11,674 hundredweight. Of 4,058,883 undressed sheep and lamb-skins, the produce of Great Britain, more than 95 per cent. goes to the United States; of 6,581,643 foreign dressed, the major part goes to Germany. In undressed leather received from foreign countries and the colonies, 10,144,304 pounds were re-exported, one-third to Holland and 904,883 pounds to the United States. In dressed of the same description, 1,991,020 pounds were re-exported. In varnished, japanned, enameled leather, out of 67,284 pounds, Australasia and Russia took three-fourths. Undressed goat and sheep, 4,583,845, of which 2,544,581 went to the United States.

*Value of leather, wrought and unwrought, &c., of British manufacture, exported to the United States.*

Description.	1880.	1881.	1882.	1883.	1884.
Leather .....	£135, 363	£123, 966	£132, 175	£176, 097	£182, 963
Skins and furs .....	983, 820	920, 003	892, 794	737, 627	644, 054
Hides, raw .....	91, 383	96, 017	46, 368	28, 388	14, 856
Foreign leather, &c .....	860, 335	872, 442	173, 891	89, 257	87, 054
Skins, furs, and hides .....	245, 343	278, 010	377, 448	480, 071	385, 387
Total.....	1, 816, 244	1, 790, 438	1, 522, 176	1, 511, 440	1, 314, 314

MATERIALS USED IN TANNING AND SOURCES OF SUPPLY.

Tannic acid, found in numerous plants in more or less proportion, is the principle of all tanning process. In England the chief reliance is placed upon bark of various kinds, oak principally. Larch, walnut, poplar, elm, chestnut, willow, alder, beech, cherry, aspen, and many foreign trees and bushes contribute a small proportion of tanning material. Cutch and gambier, sumac, valonia, mimosa bark, myrobalan, divi-divi, and galls are also extensively employed.

The various imports are:

Article.	Quantity.	Value.
Bark.....cwts.	433, 136	£196, 845
Cutch and gambier.....tons.	32, 219	821, 018
Sumac.....do.	11, 704	165, 631
Valonia.....do.	84, 447	521, 621
Extracts of substances unenumerated.....		791, 864
Logwood.....tons.	68, 626	384, 950
Galls.....cwts.	37, 307	87, 413

The following is the detailed statement of the imports of bark :

	Quantity.	Value.		Quantity.	Value.
<b>BARK.</b>			<b>SUMAC.</b>		
Norway and Sweden....cwts.	19, 774	24, 266	France.....tons.	489	27, 095
Germany.....do..	2, 348	1, 622	Spain.....do..	142	1, 759
Holland.....do..	20, 194	5, 805	Italy.....do..	10, 246	146, 893
Belgium.....do..	82, 562	22, 578	Austria.....do..	675	8, 078
France.....do..	3, 804	2, 049	Other countries ... do..	152	2, 812
Algeria.....do..	28, 770	9, 402			
China (Hong-Kong) ....do..	4, 120	2, 800	<b>VALONIA.</b>		
Australasia.....do..	209, 432	128, 570	Holland.....do..	177	3, 599
United States of America.do..	52, 014	17, 548	Greece.....do..	4, 054	55, 838
Other countries.....do..	10, 318	3, 205	Turkey.....do..	30, 198	462, 052
			Other countries.....do..	18	231
<b>CUTCH AND GAMBIER.</b>			<b>GALLS.</b>		
France.....tons.	258	5, 496	Turkey.....do..	8, 948	24, 788
British India.....do..	9, 942	260, 406	Persia.....do..	833	2, 453
Straits Settlement.....do..	21, 421	538, 902	British East Indies.....do..	5, 782	5, 011
China (Hong-Kong).....do..	263	6, 800	China (Hong-Kong) ....do..	17, 792	45, 111
United States of America.do..	198	5, 792	Japan.....do..	8, 121	7, 958
Other countries.....do..	187	3, 622	Other countries.....do..	882	2, 092
<b>MYROBALAN.</b>					
Bombay and Scinde ....cwts.	230, 289	121, 458			
Madras.....do..	146, 572	71, 351			
Bengal and Burmah.....do..	17, 682	7, 938			
Other countries.....do..	846	172			

There is a re-exportation of 44,294 tons of bark (5,822 to United States), 11,063 tons of cutch and gambier (1,165 to United States), and 1,006 tons of sumac, 793 of valonia, 12,831 hundredweight myrobalan, and 28,903 hundredweight (2,520 to United States).

A minute and interesting description of these various imports may be found in the exhaustive book of Mr. Charles T. Davis, of the United States, on "Leather."

#### AMERICAN LEATHERS.

There is no doubt an unjust prejudice still existing against American leather. Indeed for general uses it has no standing in the English market. Mr. Davis, in his book on "Leather," to which allusion has already been made, says :

English tanners are in the habit of saying that American leather is only colored, not tanned, and that it will not wear more than half as long as their home product.

The steady increase of the American trade in leather here during the last four or five years, as statistics show, indicates, however, that American sole, upper, and patent leather is gradually gaining in favor. The difference between English and American leather almost entirely arises from the different systems and processes of tanning. The issue is between oak and hemlock. The verdict of the English is undoubtedly in favor of the former. They prefer their own leather to foreign, and oak to hemlock. A thorough investigation, carefully made, justifies the statement that American leather is only used in this country for waxed uppers and soles, and in rough, low-priced inferior goods. Indeed, it is the fashion of boot and shoe dealers to deny the use of American leather altogether whenever they can. Some of the objections to American leather preferred by the importers of it as well as others may deserve consideration. They are as to its harshness, its want of finish, and its red color.

The first, it is said, comes from the hasty American process of tanning, and from the hard water used in the operation. The slower processes

and the softer water used in tanning produce the French and German leather so much esteemed here.

By "want of finish" is meant that to which a correspondent in an English trade paper alludes when he says:

If American tanners would copy the English system, and cut off the shoulders and bellies, using those parts for inner-soling welts and similar purposes, making the butts into solid sole and strap leather, they would find it to their advantage.

The third comes, of course, from the hemlock used, and so bitter is this objection that in some places here patent extracts are advertised to neutralize this color.

The enlargement of American trade in leather here mostly depends, first, upon the readiness of our countrymen to acknowledge the faults of their production and to apply the remedy, and, second, upon their recognition of English prejudice, if it exists, and, for the sake of trade, upon their willingness to humor it. The best way to cultivate and increase American trade in this country is to adapt American goods to this market, and then depend upon established merchants and factors to sell and dispose of them.

Among the largest importers of American leather in London are Barrows Bros. & Co., Boucher, Mortimer & Co., George Morris & Sons, De Clermont & Donner, and Fisher, King & Co. I am informed by George Morris & Sons, who are particularly active in the American trade, that they accept consignments of leather at 3 to 4 per cent. commission; that the freight from Boston to London is from 20s. to 30s. a ton and from New York to London about 45s. The dock charges amount to about 7s. per ton.

#### BOOTS AND SHOES.

London and its suburbs support 406 wholesale and 4,248 retail manufacturers and dealers in boots and shoes, and in the towns of Northampton, Leicester, Stafford, Wellingboro', and Kittering this may be said to be the only business of the people.

Many of the London manufacturers have auxiliary establishments in these and other interior towns. The system of beginning processes of manufacture of boots and shoes by machinery and completing them by hand-work in the houses of employés still exists, but the tendency is to centralize the business either in or near to the places where the factories are located. The catalogue of an English boot and shoe machinery company in London, a copy of which is before me, shows that this country is supplied with the latest American inventions in shoe machinery, and that these machines are not all imported, but some are constructed here after American patterns.

#### CLASS AND STYLE.

The varieties of boots and shoes worn in London, already great, are constantly increasing; indeed the number of shapes and styles is a subject of grievous complaint with English retail shoe dealers because of the large stock they are required to keep, and this is especially so in regard to women's wear.

Men's numbers run from 6 to 11; and women's from 2 to 7; babies' shoes run from 5 inches to 6½, children's from 6½ to 7½, girls, 8 to 9 inches, youths' from 9½ to 10½ and 10½, women's from 9½ to 11½, men's 10½ to 13½.

#### AMERICAN BOOTS AND SHOES.

Mr. I. B. Leno, an English writer, has just published a book on the art of boot and shoe making, giving with practical details the history

of the industry in England, and illustrating the mode of cutting and fitting boots and shoes. This hand-book will be found exceedingly helpful to Americans who desire to cultivate and extend their business with Great Britain.

The American boot and shoe are scarcely known in London. There are, indeed, several places where American work is advertised and where the American flag is improperly used as a trade-signal, but genuine work is not found in these places. A few of Burt's American shoes are sold here, but so few that the fact in this connection scarcely deserves notice.

As Great Britain exports over half a million pairs of shoes over all imports, there is not an absolute and necessary demand for foreign shoes here. Still France, Belgium, and Holland send here 120,000 pairs annually, while America sends only 400. This record certainly ought to be speedily and greatly improved. To this end the practice of the French and German in sending experts here to investigate and report upon the trade, its needs, fancies, and prejudices might with profit be followed. To succeed, the American trade will have to offer this market the English form and style of shoe with American modifications. These should at first be slight, to avoid or humor existing prejudice.

#### HOW TO INCREASE AMERICAN TRADE.

As suggested in regard to the trade of American leather, the established houses here would seem to offer the best means to use in extending the sale of our boots and shoes.

There is no objection to the present mode of packing American shoes, the only point being to economize space without injury to the goods. The French importers use the card-board boxes for ladies' shoes, as in America. In the exports of mixed stock on long voyages, as to Australia, a custom is said to have grown up in London of putting babies' shoes in women's and women's in men's to save expense of extra space.

The following statistics show the whole course of the British trade in boots and shoes for the last 19 years:

[Quantity in dozen pairs.]

Years.	Imports.		Exports.					
			British produce.		Foreign and colonial produce.		Total exports.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
1864.....	18,359	£57,229	404,135	£1,484,421	3,125	£11,605	407,260	£1,496,026
1865.....	27,297	98,758	439,283	1,462,105	4,701	16,940	443,984	1,479,045
1866.....	27,367	81,006	295,801	998,888	2,846	8,924	298,647	1,007,812
1867.....	31,835	78,082	274,036	952,804	2,538	8,727	276,574	961,531
1868.....	36,421	110,160	439,265	1,397,606	8,665	31,505	447,930	1,429,111
1869.....	31,502	90,619	436,329	1,326,792	6,137	20,514	442,466	1,347,306
1870.....	44,554	131,034	372,599	1,148,423	4,147	14,281	376,746	1,162,704
1871.....	44,229	138,394	506,928	1,513,771	17,037	49,787	523,965	1,563,558
1872.....	46,139	151,218	579,130	1,695,248	13,597	43,452	592,727	1,738,700
1873.....	40,304	146,731	527,694	1,707,886	10,240	40,426	537,934	1,748,312
1874.....	44,742	153,870	410,114	1,374,302	5,289	24,762	415,403	1,399,064
1875.....	84,733	240,000	462,840	1,517,267	12,498	44,502	475,338	1,561,769
1876.....	109,896	328,479	443,293	1,404,075	19,233	72,057	463,126	1,476,132
1877.....	99,396	348,786	436,166	1,336,478	18,684	71,922	454,850	1,408,400
1878.....	102,690	370,147	430,273	1,315,731	22,095	82,286	452,368	1,398,017
1879.....	127,504	479,498	433,374	1,311,293	48,826	168,295	482,200	1,479,588
1880.....	95,487	381,579	420,189	1,282,221	31,347	110,035	451,536	1,392,256
1881.....	86,451	390,756	554,255	1,583,280	30,242	109,881	584,497	1,693,111
1882.....	109,959	487,300	634,404	1,862,477	49,039	191,987	683,443	2,054,464
1883.....	123,058	421,214	513,134	1,542,072	42,686	171,257	555,820	1,713,329



And a detailed statement of the imports and exports for the year 1884 is given in this table.

Imported boots and shoes 111,204 dozen pairs, value £352,567; exported English manufacture 526,544 dozen pairs, value £1,577,444; of foreign and colonial 39,888 dozen pairs, value £162,576.

IMPORTS.

Countries.	Dozen pairs.	Value.
Germany .....	957	£23,509
Holland .....	15,539	50,181
Belgium .....	48,761	98,619
France .....	44,632	196,827
Other countries .....	1,315	8,981

EXPORTS.

[British manufacture.]

Holland .....	12,588	£21,682
Egypt .....	3,854	10,578
United States of Colombia .....	5,180	18,886
Chili .....	4,243	10,966
Brazil .....	40,024	148,217
Argentine .....	12,519	81,282
Channel Islands .....	8,934	22,468
South Africa .....	101,110	817,336
British India .....	23,078	77,956
Australasia .....	247,351	718,344
West Indies .....	41,997	118,190
Canada .....	2,935	11,514
Other countries .....	22,731	80,180

Exports of foreign boots and shoes to Australia 36,648 dozen pairs, value £153,051, and to other countries 3,240 dozen pairs, value £9,525.

This report cannot perhaps be concluded better than by quoting from an editorial that appears to-day in the London Leather Trade's Circular, suggested, it seems, by the very statistics to which attention has been called :

While the superiority of British workmanship in the higher processes is recognized, and our trade in goods requiring the application of those processes has increased, the manufacture of the ruder articles is now growing up in countries that used to buy from us, and our manufacture for these markets has consequently declined. And worse than this, we are being supplied with the cheaper kinds of goods to a very large extent, and most probably by those countries which were but recently our customers. At present this view of the case indicates a considerable increase in the finer kinds of manufacture. But there is the consideration that those countries that acclimatize the rougher manufactures will not be content till they have grasped the better portion of the trade. We must look out, then, in the near future for a considerable loss of trade unless we can obtain possession of new and lucrative markets. Another indication of the truth of the view we have taken is to be gathered from the table of exports during 1884. We see there that the only two countries to which we export raw hides are the United States and Germany. The fact of such an exportation from a manufacturing country like the United Kingdom to countries so largely agricultural as Germany and the United States is significant. The efforts that are being made in those two countries to foster manufactures are well known. Both of them abound in the rougher and commoner kinds of hides. To send hides to the United States would seem at least as unnecessary as to send coals to Newcastle. But we doubt nothing that these exports are of those superior hides for which the best market has hitherto been the United Kingdom, and which are mainly used in those more delicate processes from which our trade has been accustomed to derive the greatest profit. The exportation to which we call attention is a sign that the Germans and Americans are beginning to supply their own demands in these articles,

and perchance may shortly aspire to supply ours. When the demand for the particular sort of hide that is indicated by the figures to which we have alluded has increased in these countries sufficiently to afford prospect of a fair trade, the item will probably disappear from our trade returns, for the exportation will then be direct, and not, as now, through our intervention.

THOMAS M. WALLER,  
*Consul-General.*

UNITED STATES CONSULATE-GENERAL,  
*London, August 13, 1885.*

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## TUNSTALL.

### REPORT OF CONSUL LANE.

#### LEATHER.

The present condition of the leather industry in this district is far from prosperous or healthy, and from what observations I have been able to make I should say that it was not only in a depressed but in a declining state.

This decline is not, in my judgment, entirely due to, nor a proof of, a generally bad condition of the trade throughout the country. The tanning industry is in the same transition state which is working havoc with many trades in many localities, while it is building them up in others, and all this doubtless with less injury to the country at large than a number of disused premises, and the natural lament of those wont to be employed therein would, without some reflective resistance, force itself upon the convictions of the casual visitor. I mean the tendency for certain industries to concentrate in certain localities. A large concentration of capital in a given industry once secured to a locality of course usually perpetuates and strengthens such a condition. But this law of the "survival of the fittest" seems to work more rapidly in industrial than in physical or natural developments, and although it is often cited here as a sound tenet in economies when international rivalry is in question, it does not find such fervent favor among those numerous outlying neighborhoods, the people of which often quite suddenly find their means of livelihood drawn into some great fattening center, where the long rows of red brick cottages continue to lengthen and despoil the landscape, and testify to the prosperity of the town.

But the change is, after all, a natural and inevitable one. It has been no doubt largely stimulated by the extensive factory system, which had had almost a spontaneous growth in the United States. If England would stick to the methods of work which she has not learned from the United States, the competition of our manufactures would be much more troublesome to her than it is.

This district has the pottery industry secure against all English rivals, and in that industry is in the front rank with the competitors of all nations; but what it once had of the leather industry had virtually departed to London, Warrington, Leeds, and perhaps a few other places. The tanyards found in this district are situated in the old market towns, and are of very ancient origin. Said one very intelligent informant to me, "It is quite probable that the leather of which were made the boots and shoes worn by the Pilgrim fathers when they left these shores to lay the foundation of the great American Republic was tanned in some of these yards, they being in that day, no doubt, among the most important

tanneries of the Kingdom." These tanneries, although their capacity is as great now as a hundred years ago, are much more limited in their work. Their capacity now is much in excess of probably double the quantity of their output. There are in all working at the present time six yards, as follows: One at Leek, one at Newcastle-under-Lyme, one at Burton-on-Trent, one at Rugely, one at Stafford, and one at Stone.

These yards are capable of turning out some five hundred hides per week, or, allowing for holidays and other contingencies, about 24,000 hides per annum. But this is much in excess of their present production, and the full amount, of course, is but a small proportion of the total product of the country.

#### WHENCE THE HIDES AND SKINS ARE OBTAINED AND THEIR COST AT THE TANNERIES.

The hides and skins are chiefly obtained from the butchers in the immediate neighborhood of the tanneries. The tanneries before designated, however, do not consume all the supply thus afforded. Many are sold to the more extensive tanneries in other districts. On occasions when the tanneries require thicker hides for straps or thick soles they purchase them in Liverpool, at which place they are imported, mostly from the United States. The straps are used for driving machinery, but the demand for them is diminishing, because engineers are using in their place straps made of cotton, which are much cheaper in their first cost.

A practical mechanical engineer whom I have consulted on this subject believes that the cotton strap will not permanently supersede the leather strap or belting if the latter is properly pushed in the English market. He says that although the cotton strap is cheaper in the first instance, it is not so durable, nor can it be repaired with anything like equal facility. He thinks that these advantages in the leather strap more than equalize the unfavorable difference between its cost and that of the cotton strap.

The prices now being paid at the tanneries are as follows: For cow-hides, 6 to 7 cents per pound; for heifers' and bullocks' hides, 7 to 8 cents per pound; for calf-skins, 8 to 9 cents per pound; for bulls' hides, 5 cents per pound; for maccassardly, 5 to 5½ cents per pound; for horse hides, \$2.43 to \$2.93 each.

The hides are purchased complete, with head, horns, and tail all included in the weight. It will be seen that the district participates only in a very small degree in the consumption of the 700,000 cwts. of hides now annually imported into England.

#### MATERIAL USED IN TANNING.

In designating these materials we may begin with lime, which is readily obtained from the lime-kilns usually to be found in the vicinity of the tanneries. For some purposes the dung of dogs, pigeons, and fowls, is used. The dog dung is purchased at the kennels where the fox-hounds are kept, and is a perquisite of the huntsmen. The pigeon dung is obtained from the large dove-cotes in the large towns and neighborhood. The fowl dung is purchased from the farmers in the vicinity of the tanneries. Salt, alum, and saltpeter are used for the white lace hides, added to one ton of 2,240 pounds of water in the following proportions, viz, salt 25 pounds; alum, 1½ bucketsful; one handful saltpeter. The salt is obtained at the extensive salt-works at Winsford, in Cheshire, and some from Stafford, both places convenient and easily accessible by rail to all the tanneries.

BARK.

Comparatively few of the very large number of substances containing tannin are used in this district. Among those which are chiefly used is oak bark. This is obtained largely from estates in the neighborhood, on some of which there are extensive tracts of timber land, which, escaping or resisting thus far the onsets of dialectic innovation, are still designated "The Woods." The oak forests, as well as an occasional half-isolated tree, no longer deemed desirable in the deer park, and which, of course, has grown to an immense size, supply the tanneries in this locality with a liberal share of the bark they use. But what they are unable to obtain from these sources they purchase at the sea-ports, where the importations are from European continental countries, from Algeria, from the East Indies, from the United States, and from the Australasian colonies—more extensively from the last than from any other country. In the calendar year 1884 there was imported into Great Britain bark for tanning purposes amounting to 434,794 cwts., valued at \$949,980, which was 64,844 cwts. greater in quantity and \$189,429 greater in value than the average yearly imports for the previous five years.

In the year 1883 the imports of tanning barks into the United Kingdom were 365,106 cwts., distributed as follows:

Imported from—	Cwts.	Imported from—	Cwts.
Australasia.....	183, 777	Norway.....	8, 858
Belgium.....	59, 936	Sweden.....	6, 410
Algeria.....	46, 052	British East Indies.....	4, 605
United States .....	86, 203	France.....	3, 323
Holland.....	12, 855	Other countries.....	3, 087

It cannot be ascertained with certainty what share of these importations are used in this district, but the amount cannot be very considerable. It must also be noticed that this was not all oak bark.

Another material used is valonia. This consists of acorns and their cups, which are ground up together. It is obtained from France, Holland, Austria-Hungary, Greece, and Turkey—by far the larger portion from the last-named country. This substance being entirely imported, it may be of interest to note the relative amounts from the respective countries mentioned.

The figures are for the year 1883, and include the total imports of valonia into the United Kingdom for that year, as follows :

	Tons.
From Turkey.....	27, 030
From Greece.....	3, 101
From Austria-Hungary.....	178
From Holland.....	100
From France.....	59
Total.....	30, 468

Representing a value of \$2,356,496.

For the year 1884 the amount imported was 34,450 tons and the value \$2,562,621, but the different countries from which imported and their respective shares cannot be given.\*

\* Figures for 1884 have since come to hand, but do not vary very materially from the foregoing.

## GAMBIER.

This substance comes chiefly from Bombay, British Burmah, and the Straits Settlements, to which may be added a small quantity from the United States. Under the head of cutch and gambier the British annual statement of trade for 1883 gives the following as the imports for that year:

	Tons.
From Bombay .....	277
From Bengal and Burmah.....	8,115
From Straits Settlements.....	17,477
From Philippine Islands.....	47
From United States.....	877
From other countries.....	44
Total.....	26,837
Total value.....	\$3,458,724

There was an increase in 1884 in the importation of Gambier of 5,378 tons over 1883, corresponding to the general increase in other tanning substances.

The three last-named ingredients are mixed for the tan pits in the following proportions: Oak bark, 130 tons; valonia, 60 tons; gambier, 3 tons. The ingredients heretofore mentioned may be properly classed as "tanning substances."

For curing, the following articles are used, viz:

## SUMAC.

The entire supply of this for the United Kingdom comes from foreign countries, and the following is the official statement for 1883:

	Tons.
From Italy .....	12,395
From Austrian territories.....	1,707
From France .....	688
From Spain.....	54
From other countries.....	32
Total.....	14,876
Value .....	\$1,047,748

Although these figures do not show it, I am told there is a small quantity of this substance imported from the United States.

## COD-OIL.

This is obtained mostly from Newfoundland and Sweden and Norway.

## DUBBING,

a mixture of cod-oil and tallow and lamp black completes the list of substances used in tanning to any extent in the district.

Diligent inquiries fail to elicit any very definite information as to the quantities of these foreign substances consumed in this district, and the best approximate conclusion thereon will be reached by assigning to the tanneries of this locality such proportion of these imports as will make their ratio to the total conform as nearly as possible to the district share of the leather trade as defined in other respects.



## QUANTITY OF LEATHER.

The number of hides tanned and prepared for use in this district at the present time is about 245 per week. They are almost wholly consumed in this country, and principally at Northampton, Leicester, Nottingham, Stafford, Stone, and the Isle of Man.

## LEATHER IMPORTS.

There is quite a large amount of imported leather used in this district, but in the absence of any importing station as well as any large importing houses in the district it is hardly possible to ascertain the quantity. It may be said that very little is imported directly by the boot and shoe and other manufacturers, but a considerable quantity is brought by them from London and Liverpool dealers. On the item of leather imports, a reference to the table (No. 1) shows that the United Kingdom imported for consumption in 1884, 64,673,363 pounds of leather, amounting in value to \$21,447,318, the largest importation both in quantity and value ever recorded in a single year.

It was an increase of 17,484,646 pounds, or 37 per cent., in quantity, over the average yearly importations for the previous five years. It was also an increase in value of \$6,112,116, or 40 per cent., over the annual average for the same previous period. The United States has not quite sustained its proportional representation in contributing to this increase in imports of leather. A glance, however, at Table No. 2 will show the very fair increase in the value of imports of leather from our country in 1884 of \$1,206,227 over the average per year for the previous five years, being an increase equivalent to 21 per cent. The increase in the consumption of domestic leather in the United States will doubtless explain this relative decline in the ratio of increase in exports to England as compared to other countries; and as it appears by the table (No. 2) that we still furnish this country with one-fourth of its leather, that item of our international traffic may be considered satisfactory.

## KINDS OF LEATHER IMPORTED.

So far as the kinds of leather imported are concerned, the share which finds its way to this district is chiefly the ordinary cowhide or upper leather for workmen's boots—I do not mean the rough, apparently split leather, of which clogs (nailed wooden-soled shoes) are made, but strong, thick, leather, which seems very desirable and takes a polish for Sunday. There is, however, a fair quantity of lighter leather used in this district, which comes from foreign countries and largely from France; I mean the various materials which enter into gentlemen's fine boots and boots and shoes for ladies and children. The United States has a foothold here in leather, and it can be easily strengthened and maintained by faithfully observing the simple and wise business rule of offering nothing for what it is not, and taking care that everything offered shall be good of its kind.

The general principle I have tried to bring to the front is ready for application to the leather industry, for faults are found in England with American leather, and if we want to retain and increase our leather trade with England the faults must be removed. Can we supply them with the kind of leather they want as cheaply as other countries or their own manufacturers? I think we can.



## IMPORTS FROM THE UNITED STATES.

In response to this inquiry I may be allowed to say that the column of leather imports in Table No. 2 shows the value of such imports for each year from 1854 to 1884 and the first half of 1885, inclusive. Of course, the amount imported into this district, as before explained, cannot be accurately given, but the share can be approximately allotted when all the reports are in. For the year 1884 the value of the imports of leather into Great Britain from the United States was \$6,940,714, and for the first half of the present year they amounted to \$3,582,021, which indicates an increase for the whole year sufficient to raise the amount for 1885 to \$7,164,042.

## AMERICAN LEATHER COMPARED WITH MANUFACTURES OF OTHER COUNTRIES.

As already shown, England obtains 25 per cent. in value of her leather from the United States. Perhaps, in connection with a comparison of qualities, a statement of the countries from which it all comes and the amount from each may be useful; for, naturally, the productions of the different countries differ in kind and quality, and comparisons not clear in this respect might be misleading; but by naming the countries and the amount of their respective shares, with prices in the leather supply of England, each class of goods will be more readily ascertained.

For statistical purposes the official statements divide the imports of leather into three general classes, viz, "leather undressed," "leather dressed," and "leather varnished, japanned, or enameled."

These three classes in the above order are tabulated for the year 1883, as follows, viz:

## UNDRESSED LEATHER.

	Pounds.
From Madras .....	17, 859, 652
From the United States.....	17, 329, 692
From British India .....	3, 663, 452
From Australasia .....	11, 480, 828
From Straits Settlements .....	3, 957, 651
From Bengal and Burmah.....	1, 821, 925
From British North America .....	155, 500
From Germany .....	89, 073
From Holland .....	86, 048
From France .....	62, 799
From Spain.....	42, 773
From China.....	37, 923
From Belgium .....	25, 650
From Aden .....	21, 280
From other countries .....	186, 333
Total.....	56, 820, 579

## DRESSED LEATHER.

From the United States .....	7, 858, 956
From France .....	5, 187, 323
From Holland .....	1, 809, 262
From Germany .....	1, 397, 928
From British North America .....	779, 321
From Belgium .....	260, 657
From British India.....	156, 802
From Turkey .....	6, 226
From Australasia .....	2, 812
From Russia.....	1, 669
From British Possessions in South Africa.....	700
From other countries .....	5, 183
Total.....	17, 466, 839

VARNISHED AND JAPANNED LEATHER, ETC.		Pounds.
From Holland .....		289,707
From United States .....		83,387
From France .....		67,724
From Russia .....		44,088
From Germany .....		18,236
From British North America .....		6,868
From Belgium .....		648
From Turkey .....		190
Total .....		430,848

Without explanation these figures indicate from what countries the coarser and finer grades of leather find their way into the English markets and workshops. The total value of the first grade is \$16,117,449, of the second \$9,917,041, and of the third \$567,740, making the value per pound of each class as follows: Leather, undressed, 28 cents; leather, dressed, 57 cents; leather, varnished, japanned, &c., \$1.32.

It is gratifying to know that the United States stands at the head of the list in one of these classes, and second only in the other two in the value of its exports to the United Kingdom. But we must not forget that these figures give only the quantities in weight from the different countries and the average value per pound for the different grades of leather. To show how American leather compares with that from other countries, so far as the import prices will disclose the facts, we must make a further comparison by ascertaining the values as well as quantities imported from different countries. Without going through the whole list, it will afford a fair relative knowledge of the rating of American with other leather in the English markets if we ascertain the average price of the former and compare it with the prices paid for the same grade of leather imported from one or two of the other countries from which England draws her chief supplies of foreign leather. By this method we deduce the following results: Price per pound of undressed leather imported from Madras, 36 cents; from the United States, 22 cents; and from Victoria, 24 cents.

Price per pound for leather dressed: From United States, 32 cents; from France, 69 cents; from Holland, 79 cents. Price per pound for leather varnished, japanned, orenameled, &c.: From Holland, \$1.30; from the United States, \$1.09; and from France, \$1.80.

A series of years will show the same result. We may now proceed to ascertain whether the result of my inquiries in the district seems to indicate a like degree of inferiority in the American leather used here. The bulk of the leather used by the boot and shoe manufacturers in this district, for their staple goods, is of English, Australasian, and American production, and consists chiefly of the two first classes before mentioned. The prices per pound run as follows: For English leather, 44 to 56 cents; for Australasian leather, 32 to 36 cents; for American leather, 22 to 26 cents. In this district the home-tanned leather is thus shown to be considered the best, the Australasian next, and the American the poorest. Indeed, I am informed that even at the lower figure dealers often have difficulty in disposing of the American leather, except for very plain goods. But we should not be greatly alarmed at these disparaging opinions, when, in addition to the encouraging statistics already given, we consider that our average annual exports of leather to England for the four years 1881-'84 exceed the annual average for the five years 1854-'60 by more than three times the ratio of increase in the imports from all countries, as based on the same averages; and if we omit the United States from the averages of the re-

spective periods "from all countries," we find the increase in the annual averages of the import "from all countries" to have been less than one-fourth the ratio of increase in the imports from the United States. But all these figures are useful, chiefly as showing that there are opportunities for a still further increase. None of it ought to be the least misleading in appearance or badly finished. When our leather can be made to command the prices of English leather in the English market our trade will be secure and much more extensive. In my judgment this ought to be the primary purpose and effort of our exporters. Any export trade, to be permanently successful, must reach and maintain a high standard of quality in the goods exported, such a degree of excellence as in time makes a manufacturer's name conclusive evidence of the good quality of his wares. A reputation of this sort in this country is worth much more than in ours, and it is correspondingly more difficult to establish a trade without it. American manufacturers, therefore, and particularly those who produce staple goods like leather, cannot understand the situation too clearly.

#### HOW AMERICAN LEATHER SUITS THE MARKET.

I give the exact answer to this question which was given by a gentleman very competent to speak on the subject, and whose views and assistance I was very glad to obtain in arriving at an intelligent understanding on this and some other points in the inquiry. He said, "American leather being sold at such a low price enabled certain shoemakers to produce boots and shoes for the working classes at very low prices. There is a very large trade done in these low-priced articles; consequently for this purpose the American leather from its cheapness suits the market. I should say from what is to be seen in this district that the quantity of American leather used for this purpose must be very great."

It becomes tolerably clear from the above statement, with the figures already given, that the 25 per cent. of the total British leather imports from the United States is, with slight exceptions, worked up into very common boots and shoes, and it is quite clear that so far as leather for this purpose is concerned we are now crowding to the wall not only the exporters of other countries, but the English leather manufacturers themselves. I trust we shall not stop here, and partly for the reason that we cannot stay here so easily as we can at an advance of another 25 per cent. embracing a higher quality of goods for the use of another class of people. I do not see how we can escape the conclusion that the bulk of American leather imported into England at the present time suits the market for workmen's cheap wear, but not for any other purpose, and that this condition of things ought to be and can be improved.

#### FAULTS FOUND WITH AMERICAN LEATHER.

The faults found with American leather here have been stated to me by persons in the trade in a practical and intelligent manner, in substance as follows: It is said that the American leather is soft and spongy, so that when used for boots or shoes, and worn in wet weather (which without serious exaggerations, and in spite of the present "dry spell," might mean "all the year round" in this country), it soaks up the moisture, or water rather, and spreads.

I find the opinion quite universal among boot and shoe makers that this quality of absorption, which the best tanning processes ought to

overcome, is regarded as a great objection to American leather. It soon makes the boot ugly, uncomfortable, and unfit for wear, and it is the more important to draw attention to this feature of the case for the reason that this defect is not believed to arise from any inherent defect in the hides, but from defective tanning. American hides are said to be mostly tanned with hemlock, and the opinion is well-nigh universal here that the leather thus produced is always much inferior to that tanned with oak bark and valonia. Again, the American hides are said to be insufficiently tanned; that is, in not being allowed to remain long enough in the tan-pits. The average time in England, at any rate in this district, is from eleven to fifteen months.

There is only one remedy, and that is, if the faults are real, to apply the most improved methods in the tanning and all the processes, so as to bring out the best possible quality of leather. The manufacturer having done this need not trouble himself too much about prices to begin with; but let him first introduce his goods, not by sending a sample or publishing a catalogue, but by coming himself or sending an intelligent, energetic, genial, and trustworthy agent to lay his samples (which must not be scraps) before the boot and shoe manufacturers of England. This agent must be patient, but persistent. He must not grumble, at least audibly, at the slow business methods of the country. He must not try to transact business on the hurry-scurry system. It may be said that this is a very expensive method for introducing a trade. This is true; but English manufacturers have never hesitated at expense in establishing their trade in the uttermost corners of the earth, and if manufacturers in the United States will adopt a little of British sagacity, enterprise, tact, and confidence in introducing good leather, as well as other things, into this country, a largely increased trade will be the result.

#### ENLARGING THE TRADE IN AMERICAN LEATHER.

I believe the best practical means for this purpose have been already pointed out. The formation of a syndicate with a large capital, to set up a house in London under the management of an American, who should be a practical man in the trade and ought to be a person of good address, might prove a successful venture; but these are matters in which the manufacturers themselves, with such co-operation as they can secure on this side, ought to be much better judges of than the consuls. But there is one line of procedure sometimes adopted which I have no hesitation in condemning utterly. That is, the consignment of goods to some English house selling similar English goods. That system has done much to bring American goods into disrepute in this country. In nine cases out of ten the dealer makes no effort to sell the American article. He shows his customer the English manufactured goods always in preference to the American. His recommendation of the latter is always feeble; there is no heart in it. He "doesn't know much about it; it is said to be a very good thing; but here is one made by Horns-dale & Sons, of Grimsford, which is undoubtedly the best article of the kind manufactured anywhere." I am aware that when an article has its character once established in this country all seeming prejudice and hesitation about it disappear, and English agents can then be trusted to give careful attention to it and push it on the market as earnestly as they would English goods. When the remunerative part of the agency comes of itself the agent will be ready to maintain it by extolling the virtues of the goods; but very little demand for any

American production will be created even through these agencies. The result is that one after another they are abandoned, and the reputation of the thing, whatever it is, so far as it had one, is injured, and the exporter at last discouraged. I have been in shops almost innumerable, and asked for some article of American manufacture which I knew to be superior to the corresponding ones of English make, so far as I had seen them, and, with very few exceptions, I have had, in substance, and, with very slight variation in language, this reply: "Well, no; we did have them, but we found there was no demand for them, and we don't keep them any more." "Did you sell what you had?" "Well, we sold, I believe, a few; but, you see, they were sent to us by our Liverpool house just to see how they would go; and we sent back the rest." "Did those you sold give satisfaction?" "Well, we've not heard anything about it. Very likely they did; but I don't think they are up to the English goods, you know; I mean to say, at the same price."

And this is the system and this is the spirit by which American goods are pushed in English markets by English agents. When an article has acquired the standing and reputation throughout England that has been secured, for example, by manufacturers of agricultural machinery or the Waltham watches, there is no want of agents very glad of the chance to sell it for the handsome commissions it will bring; but the article must be well and favorably known before it will get either fair or profitable treatment by the side of the domestic article.

#### IMPORTERS OF LEATHER.

As already stated, there are no persons in this district engaged to any extent in the direct import of leather. The boot and shoe manufacturers purchase from the large importing houses in the large cities, especially in London and Liverpool, and I do not think any responsible and trustworthy person would be able to see any encouragement to enter into competition with the importers in those places by establishing an importing house in this district.

#### BOOTS AND SHOES—GENERAL REMARKS.

The section of Table No. 1, "boots and shoes," shows that the imports have never reached 1,000,000 pairs per year since 1875, when they slightly exceeded that number for the first time. The average yearly imports for the past four years were 814,825 pairs and \$1,173,914 in value. The average annual exports for the same period were 6,694,899 pairs and \$7,987,396 in value. It will be seen that the average price per pair of the boots and shoes imported was \$1.44, and of those exported \$1.19, indicating that the imports were largely of the higher quality of goods, but the average quality of both imports and exports would seem to be of indifferent merit, and if we were to judge by the retail or shopkeeper's prices of the fine goods, we should have to conclude that his profits were larger or that a very large ratio of the quantity in each case must be made up of inferior goods, to reduce the average wholesale price to so low a figure. A great many, however, are doubtless children's shoes, which may be of fairly good quality at these average prices. Moreover, if we go back to the ten years 1851-'60, we find that the average price per pair of the imports for that period was only 81 cents. The proof thus furnished is conclusive that the quality of the boots and shoes imported into this country is of a much higher average than it was a few years ago. This is one



of the facts which shows that the chief competition which this country is meeting in the boot and shoe industry is in the finer goods; and this conclusion is quite in accord with what comes under one's observation in such inquiry as is simply incident to his own and his family's wants.

Some intelligent tradesmen, however, assure me that the turn has now come; that there is no longer a rage for ladies' French boots, and that the English manufacturers have stirred themselves up, so to speak, and are now turning out ladies' boots just as fine in the quality of material and finish, and just as elegant in shape, as the best French boots. That the English makers have in the last few years improved very much in what may be termed the "style" of their work in this branch is true, but I consider these sanguine views as indicating an overdegree of confidence. There is one French firm with several houses in England, custom makers, or makers to order, and dealers in fine boots and shoes, who send all their orders to Paris to be executed, and I must confess, having ordered some work from them during the last four years, that I do not think the quality of their leather and their work can be excelled anywhere. And their goods are furnished, of course, at prices as low as those charged for the corresponding class of works by English houses. We must understand, therefore, that it is not English manufacturers alone, but French as well, whom we must meet in the markets of this country if we expect to compete for trade in the better grades of boots and shoes. I do not wish to imply by this the slightest discouragement, but to inform our manufacturers of the true situation, so that they can clearly understand the direction by which alone they can acquire a good standing in this country in the boot and shoe trade. In giving the average value per pair of the exports, the statistics do not furnish us with the figures for so early a period as 1851-'60. We are compelled to take the succeeding ten years, or actually, as the table shows, the years 1862-'70, for the earliest average prices for which English-made boots and shoes were sold to foreign purchasers. That average was \$1.38 against \$1.19 per pair for the four years 1881-'4, revealing the rather curious fact that while the British imports have increased in average quality, the exports have considerably diminished in that respect.

This reduction of 14 per cent. in the average value per pair in exports cannot well be attributed to a fall in prices merely, with the imports for the same period showing an average increase of 80 per cent. since 1851-'60 and 23 per cent. since 1861-'70; the average price for the latter period having been \$1.17. And although the total imports are still small in value compared with the exports, the ratio in 1884 being 12 per cent. only, still this running up in the average quality of the imports and running down in the average quality of the exports are significant, and if continued will become very important. For when a country exports only cheap goods and imports only dear goods of the same character, the future becomes unpromising and precarious.

The work-people engaged in the industry are of a lower order, a point which ought to be reckoned upon independently of profits, and the security for the trade is greatly weakened.

Referring to Table No. 2, while neither the quantity nor value of boots and shoes alone imported from or exported to the United States are given, it will at once be seen that the trade in all manufactures of leather in both respects is inconsiderable, never having exceeded 1 per cent. of the total annual imports nor 5 per cent. of the annual exports; the average for different periods, so far as the official statistics disclose them, being 1 per cent. as to imports and 2 per cent. as to exports, except for 1881-'84, when the average of the latter rose to 3 per cent.



But notwithstanding the trade with the United States is so inconsiderable there is no reason why American manufacturers may not push their goods in English markets with a fair share of success if the conditions already noted are observed, and the goods made according to the ideas, tastes, wants, and fashions of the English people. For this purpose American manufacturers should study the English markets, the English style, manner of making and finishing, &c., and other details which it is impossible to write down with clearness, especially by one not educated in the industry.

The annual average value of the imports of manufactures of leather from the United States, for the four years 1881-'84, shows an increase of 23 per cent. over the average for the preceding ten years, and the annual value of the exports to the United States of such manufactures as averaged for the later period shows an increase of 30 per cent. over the preceding ten years, an exhibit not quite satisfactory, inasmuch as it indicates that our imports of leather manufactures from England are growing faster than our exports thereto of similar goods. But, as already intimated, the whole volume is so small that it is hoped the first result of any material enlargement will be to reverse the balance as well as to increase the extent of the trade.

As in treating the leather trade, I give herewith the imports of boots and shoes into Great Britain in the year 1883, classified by countries, with the numbers of pairs from each :

	Pairs.
From France .....	637, 644
From Belgium .....	454, 436
From Holland .....	279, 852
From Germany .....	45, 192
From British North America.....	36, 960
From the Channel Islands.....	5, 568
From Turkey .....	4, 200
From United States .....	3, 962
From New South Wales .....	348
From other countries.....	924
<b>Total pairs .....</b>	<b>1, 473, 086</b>
<b>Value .....</b>	<b>\$2, 049, 838</b>
<b>Average value per pair.....</b>	<b>1 39</b>
From France .....	1 78
From Belgium .....	86
From Holland .....	1 45
From United States .....	1 72
From British America.....	88

These figures naturally excite a little curiosity in one somewhat unfamiliar with the leather industry. It appears that the chief competitor which Belgium has in the English trade in cheap boots and shoes is Canada. I have little doubt that many people in the United States will be surprised to learn that Canada exports annually to Great Britain 36,960 pairs of cheap boots and shoes, and at a cost of only 2 cents per pair in excess of the Belgium shoes, an excess which I have little doubt is fully balanced in quality, supposing the goods be of the same general description. But the obvious question which occurs to a citizen of the United States upon such a disclosure is, why those goods are not made in and exported to England from his own country. Is it a peculiar industry confined to the French portions of the Dominion, or are our people too proud to do that sort of work? It is clear that there are now imported into this country annually from Belgium and Canada together about 500,000 pairs of boots and shoes for which the original

wholesale price is less than 90 cents per pair, while the small number of pairs of boots and shoes imported from the United States during the year 1883 were worth \$1.72 per pair, following closely in grade and quality the French goods which averaged \$1.78 per pair. I cannot understand, with the present lights before me, why the United States manufacturers cannot make these cheap goods for the English markets as well as Canada. But the fact that the fine pairs of boots and shoes imported into this country from the United States are almost up to the French goods in quality, supposing again that they are of the same general description, is important and encouraging, and ought to stimulate our manufacturers to a thorough study of the demands of this country, as already indicated. With our extensive knowledge of and employment of machinery, our intelligent work-people, and our abundance of material, it is something strange if we cannot compete successfully with all the world in the boot and shoe trade.

#### EXTENT OF THE FACTORY SYSTEM.

I have to answer it is carried on to such an extent that all other systems, so far as the general trade is concerned, are insignificant. In fact, it is the change from the old-fashioned ways of which one can see a remnant occasionally to the American methods of manufacture, which has given the industry the firm position it now holds in this country, and which justified to a limited degree, perhaps, a late cabinet minister in singling it out as one of the most prosperous industries of the country, although he was far from ascribing its healthful condition to the cause I have mentioned. The factory system is now almost universal.

There are a few men employed in all the towns doing what is called hand-stitched work, but they are very few compared with the number now working in the factories. The principal shoemakers have a number of wealthy customers who pay high prices for their boots and shoes because they suppose them to be hand-stitched. One who has made a careful inquiry tells me, "I believe that nearly all the work is done at the factories, and the shoemaker's assertion is only a trade dodge to obtain a high price. The hands that are employed out of the factory are mostly engaged in repairing."

Machinery is now used in all the factories and to the fullest extent. All the work that can be done by machinery is so done.

#### CLASSES OR STYLES.

Turning to the first clause of this question, I have to state that the feet of the English people, like those of their cousins across the Atlantic, male and female, are accustomed to boots and shoes numbered as follows :

For gentlemen's boots, 6, 7, 8, 9, 10, 11, the average sizes being 7's and 8's.

Ladies' boots, 3, 4, 5, 6, 7, the average being 4's and 5's.

For small children, the numbers it appears are 1, 2, 3, and 4.

For large children, the numbers are 5, 6, 7, and 12.

For well grown boys, the sizes are 1, 2, 3, 4, and 5.

It must be remembered that everything which covers the ankle as an outward covering for the foot is a "boot" in this country; whether laced, buttoned, or with elastic sides, they are all designated "boots," shoes only embracing the low-cut Oxford ties and the like. What are called

“boots” in at least some parts of the United States, having a high leg and made to be drawn onto the foot by means of straps attached thereto, are known here as “Wellington” boots, and are not worn in this country except for special purposes, and then they are usually elaborately made and finished. While they are strong they are really made more for appearance than hard service. For some purposes they are always somewhat ornate in style, and often have buff or light colored tops. The legs are high and polished and made firm, so that they do not wrinkle. The ordinary American soft-legged high boots are not worn here; when workmen or business men wish to protect the legs more than the ordinary ankle boot will do they wear leggins, which are usually made of leather and come to the knee joint. They are easily fastened around the leg either with buttons or hooks, or made with steel ribs in the joining edges, which spring into their places and fasten like a corset.

They are worn, of course, outside the trowsers, and I ought to say the same of the high legged boots I have mentioned. These boots are, of course, usually made to order, and as an article to be exported to this country from the United States they may, in common with all Wellington or high-legged boots, be dismissed from further consideration. As to the boots and shoes for men's ordinary wear, the following designations make up the list, viz: Shooting, a strong, thick-soled, laced boot; plain laced boot, laced water-tights, laced half tights, laced Blucher, laced half Blucher, laced low shoes, laced strong hobnailed water-tights, laced strong half water-tights.

Perhaps I ought to define more of the foregoing terms. The water-tight boot is a strong workman's boot, coming well over the ankle, with a tongue of lighter material extending above the instep, and so attached to the main portion of the boot, on either side above the vamp and opening, so as to make the boot impervious to water almost, and in some cases quite, to the top of the fastenings.

The Blucher is really an army boot, but worn to considerable extent by workmen, many of those sold in the shops being such as have been rejected for army purposes.

I was shown some of these by a dealer, and found them to be very strong, heavy-soled, laced boots made of thick undressed leather, or leather finished without any blacking or other coloring. They had the appearance of being very strong and durable, while they did not appear to be very cumbersome or likely to hurt the feet.

Then there are gentlemen's fishing, cricket, football, and tennis boots, buttoned, mock-buttoned with elastic sides, mock-laced with elastic sides, and plain with elastic sides; and dancing boots and shoes plain with elastic sides, and laced, and mock-laced with elastic sides.

For ladies' wear may be named:

High-legged buttoned, high-legged laced, high-legged elastic sides, not high-legged elastic sides, not high-legged laced, not high-legged buttoned, cloth buttoned, cloth laced, cloth elastic. Levant, kid, split kip, full kip, calf block, and low shoes of various materials laced and buttoned.

Slippers: Venetian carpet, brown and buff, patent leather, and split kip, fancy kid and cashmere, worked slippers, of silk, cloth, and Berlin wool. Children's shoes are of great variety, laced, elastic, and buttoned, and low shoes, and slippers.

The most generally worn, or what we may call the most staple goods, are, for men, “water tight” and half “water-tight.”

For ladies, “high-legged buttoned,” and for workmen cheap laced and elastic sides, strong.

Great attention is here paid to the finish of the boot; such things are known here as a very respectable looking and salable boot being made partly of paper. They are using, to some extent, horse-hides for the tops for men's boots, but they do not answer so well as ordinary leather.

Concluding my answer to this particular inquiry, I must say that I think American boots and shoes for domestic or every-day wear can easily be made to suit the regular demands of the English people of all classes. The class of work which I have already described as almost peculiar to this country must be left to this country.

I see no reason why the leather leggings already spoken of cannot be made in the United States and sold here; but, finally, I repeat that this matter of styles, shapes, &c., must have the careful study and observation of practical American manufacturers or their competent representatives.

#### WHERE THE OUTPUT IS CONSUMED.

The places where the manufacture of boots and shoes in this district is carried on to any extent are Stowe, Stafford, and Burton. In these towns there are nearly ten thousand people employed in this industry. The boots and shoes made at Burton are sold and consumed in the country; the manufacturers retail from their own shops in the different towns. The manufacturers at Stowe and Stafford, with one exception, turn out ladies' and children's boots and shoes only. Their work is all of good quality, and the cheap articles are not made in those towns. Many of their products are consumed in this country, but they have also a large export trade with various countries of the world. Among the most important markets to which these goods are sent are in the western hemisphere, Brazil, and the Argentine Republic. However, the figures representing exports from this district alone to certain foreign countries are very meager and not reliable. And it may be quite as useful to give the exports from the entire kingdom to the different countries (for 1883) as gathered from official sources. They were as follows:

	Pairs
To Australasia .....	2, 633, 445
To British Possessions in South Africa .....	1, 201, 692
To Brazil .....	553, 824
To British West Indies .....	457, 104
To the Argentine Republic .....	252, 276
To British India .....	321, 624
To Holland .....	120, 555
To the Channel Islands .....	92, 124
To Chili .....	86, 928
To Egypt .....	72, 972
To United States of Colombia .....	42, 300
To British North America .....	33, 564
To other countries .....	289, 164

The exports to the United States were not of sufficient amount to be separately stated, and, whatever they may have been, they are included with the 289,164 pairs exported to "other countries," of which amount it is safe to say they formed a very small proportion.

Testing a few of the best foreign customers for English boots and shoes by the average wholesale prices, we find that the wholesale dealers of the Australasian colonies pay, with charges added, \$1.19 per pair for the boots and shoes they buy in England. The people of the British Possessions in South Africa pay \$1.26 per pair for the goods with which the mother country supplies them. Proceeding with this analysis we find that the Empire of Brazil pays to Great Britain an-

nually for boots and shoes about \$848,679, being an average of about \$1.51 per pair. This seems rather a large figure. Going a little further we find that for the 457,104 pairs of English boots and shoes purchased by the British West Indies in 1883, the average cost per pair was \$1.13 only. For those sent to British India the average cost was \$1.37 per pair. This rather high figure is, I think, readily accounted for in the large number of British officers resident in that country in both the military and civil service. They all, of course, get their boots for themselves and families from England. But taking next, perhaps the most American of the South American states, we find that the Argentine Republic bought from England, in 1883, 252,276 pairs of boots and shoes, at a cost of 89 cents per pair. Such as are sent from this district to Brazil and the Argentine Republic are not of an expensive kind. In the year 1883 Holland took from England 120,588 pairs of boots and shoes, at an average price of 67 cents per pair. The inhabitants of the Channel Islands paid \$1.03 per pair for their English boots and shoes, and each of the following-named countries paid, as the first cost of these goods imported from England in 1883, per pair, as follows, viz: Egypt, \$1.20; Chili, 77 cents; United States of Colombia, \$1.81; British North America, \$1.81.

These figures, particularly as regards the South American trades, are a little puzzling. The great difference in prices indicates some special kind of goods for each country. There would seem to be some well-defined peculiarities in the requirements of each South American state, which English manufacturers have taken the trouble to learn and to meet. Yet a further analysis shows that England does not furnish these four South American countries with anything like what their actual consumption must be, for we find by estimating the imports per capita, according to the latest reliable returns of population, that the total British exports of boots and shoes to the states named is only an average of one pair to about twenty-three persons, the numbers for the respective countries showing as follows, viz: To the United States of Colombia, 1 pair to 26 persons; to Brazil, 1 pair to 22 persons; and to the Argentine Republic, 1 pair to 11 persons.

We have seen already that the boots and shoes which are sent to the United States of Colombia from this country are of higher average value than those taken by any other country, the original cost averaging \$1.81 per pair. The small ratio in pairs to the population indicates that they are bought mostly by the wealthy classes, and that that country offers an inviting field for building up an American trade in all kinds of boots and shoes unless they supply themselves largely. The report of the chief of the United States Bureau of Statistics (No. 3, 1884-'85), in the very useful exhibit showing the values of the exports of American products (distinguishing manufactured from crude and partially manufactured articles), gives the values of "leather and manufactures of" exported from the United States to each of the four South American states in question, during the fiscal year ended June 30, 1884, as follows:


To Brazil .....	\$29,169
To the United States of Colombia .....	22,510
To the Argentine Republic .....	3,975
To Chili .....	22,574
Total .....	178,228

With the exception of the exports to the United States of Colombia, these figures are decidedly to the disadvantage of the United States.



It is some satisfaction to know that we supply that country with twice as much "leather and manufactures of," in value, as she gets from England; in boots alone we cannot make a comparison in prices, as our Bureau does not give us the quantities exported to the various countries. But with the English and American supply combined, it would seem that the people of these countries must largely supply themselves with boots and shoes of some peculiar fashion; but which, once understood, could very likely be made in the United States, and sold at competing prices in South America.

They draw, of course, a limited supply from France, but it is plain that the total importations must be short of their natural demands, or at least of what they ought to be. But why the boots and shoes imported from England into Colombia should cost \$1.81 per pair, and those imported into Chili only 77 cents per pair, is not clear at this distance. The exports to Brazil in 1883 exceeded those to Chili, while they were of a vastly better grade, averaging, as we have seen, \$1.51 per pair. Again, the Argentine Republic took from England, in the year chosen for these exhibits, one pair for every eleven persons, but averaging only 89 cents per pair. The analysis seems to show that England's general trade in South America in boots and shoes is better, having regard to population, with the Argentine Republic than with any other state, and that there are throughout that region fair opportunities for the building up of a successful American trade in all the articles which are made the subject of this inquiry.

I learned that a certain boot and shoe manufacturer was making a peculiar kind of slippers exclusively for the Peruvian market. The information was given to me in the following written statement: "I saw some slippers being made for Peru, having pointed toes and what the men termed good spring. That meant, a shape something like half a rainbow turned upside down, ." This graphic description and pointed illustration, both of which I have faithfully copied, aroused my curiosity, and I was anxious to obtain a sample pair. An intelligent gentleman kindly offered to get me a pair of the Peruvian slippers. He did not anticipate much difficulty about it, but when he visited the manufactory where they were made he found himself at once confronted with suspicion and denial, and failed in the object of his mission.

These slippers must certainly be of a peculiar kind and made for a peculiar people.

The foreign and colonial consumption of English-made boots and shoes, as shown by the exports to the various colonies and countries not already mentioned, during the calendar year 1883, so far as they amounted in any case to enough to be accorded a separate notice, were, per capita, as follows: To Australasia, 1 pair to 1.17 persons; to British Possessions in South Africa, 1 pair to 1.10 persons; to British West Indies,\* 1 pair to 2.29 persons; to British India, 1 pair to 557 persons; to Holland, 1 pair to 35 persons; to the Channel Islands, 1 pair to 152 persons; to Egypt, 1 pair to 93 persons; to British North America,† 1 pair to 129 persons.

The statistics which I have introduced into my answer to this interrogatory showing such a wide variance in the boot and shoe trade with different places, both as regards the quantities and the qualities of the goods, certainly make, when carefully assorted and analyzed, a most suggestive feature of the general subject; but I think the placing of

\* Includes British Guiana, the Bahamas, and Bermudas, and is based on the census of 1881.

† Census of 1881.



the naked figures before our manufacturers will be quite as useful as if I were to encumber them with hastily formed theories. We cannot avoid noticing one pertinent fact, viz, that in Australasia, the British Possessions in South Africa, the British West Indies, and the Channel Islands, England has a virtual monopoly of the boot and shoe trade, and as to the other countries, that it has no such monopoly. It will also be noticed that this monopoly is confined to British possessions.

The greatest export per capita to any foreign country in 1883 was to the Argentine Republic, which country took, as already seen, 1 pair to each 11 persons of its population. The foregoing figures, taken all together, ought to give sufficient stimulus for enterprise in disclosing, as they do, the countries to which the supply, both in quantity and quality, comes in lesser ratios from the United Kingdom.

#### IMPORTS OF BOOTS AND SHOES.

Anything like a reliable statement of the number or value of foreign-made boots and shoes actually sold and consumed in this district is impossible. Table No. 1 shows the number of pairs imported into Great Britain annually from 1848 to 1884, inclusive, and the values of the same from 1849 to 1884, inclusive. From the best information I have been able to obtain, comparatively very few of these importations find their way into the retail shops of this district. In the large cities and towns a good supply of French boots and shoes, mostly for ladies wear, can readily be found; but in the smaller towns, as, for instance, Hanley, the most populous town in this district, very few, indeed, if any, boots and shoes not of English manufacture can be found. In short, the people in this district who purchase for their own use the finest goods of any sort buy them in London, Liverpool, Manchester, or Birmingham. Hence it would not do to estimate the relative consumption of foreign-made boots and shoes in this district on a per capita ratio with the country at large. The showing would not be reliable, and would doubtless allot a consumption to this district entirely too large. As to the imports into the whole country they have already been given with the average cost per pair.

#### IMPORTS OF AMERICAN BOOTS AND SHOES.

Very few American-made boots and shoes find their way into this district, as indeed we have already seen that very few find their way into any part of England. But the quality, if we can measure it by price, must be very good, as they were only exceeded in average cost in 1883 by the French goods, and by them only at the rate of 6 cents per pair. I have seen a few American-made slippers, with cotton-velvet uppers, on which flowers were worked in silk. The shopkeeper had taken them from some one who had brought over an assorted lot of American goods, chiefly in the boot and shoe and slipper line, in the hope of making something handsome on his venture. And I must say the slippers were very nearly an equivalent to the same kind of English slippers, in cheapness, but they were not so well made where the work did not show. The lining was of very poor, coarse stuff. The stitching was not good. The English dealer who had them for sale said they were not well made. He did not seem to be prejudiced. Concerning these slippers, he said he could not sell them. He did not, aside from the faults already mentioned, know why, except that his customers did not want them. English-made slippers of the same style are

selling rather freely at about the price asked for the American slipper. I gave 7s. 6d. for a pair, and the dealer referred to asked 8s. for the American slipper. The difference in the general appearance of the slipper is in favor of the American article. The dealer frankly admitted this. He said the shape was better; they were more nicely drawn in beneath the instep and above the heel, so that the slippers adhered more readily and comfortably to the feet than the English slipper, which is usually an ungainly foot covering made with little reference to shapeliness. Yet, if they are better made throughout than the American slipper, they will sell in preference to the latter, even at the same price. The French boots and shoes sold in England are well made, and the opinion of English tradesmen generally is that both the English and French goods are made better than the American. The other countries from which any considerable importations are derived are Belgium and Holland. As the imports from the former of these seem to indicate a very low grade of work, averaging only 86 cents per pair, while the imports from the United States average \$1.72 per pair, the difference in kind thus indicated would seem to make a comparison of little value; but aside from the slippers, I have not been able to find any American goods covered by the inquiry in the district, and if I had I could not have found many pairs of any Belgian or Holland boots and shoes for the requisite comparison. A careful inquiry leads me to the conclusion that very few foreign made boots and shoes are sold in this district. A few ladies' and children's fine French boots and slippers may be found in some of the principal towns. But, as to a comparison between American boots and shoes and those imported from other countries, so little is known here about the former that any opinion one can get by inquiry among manufacturers and tradesmen is of little value. He can only learn that there is a very wide-spread opinion unfavorable to the American boots and shoes.

#### HOW AMERICAN BOOTS AND SHOES SUIT THE MARKET.

As may be gathered from the preceding answers, in the opinion of the dealers they do not suit the market. That this opinion is due largely to a want of information, a belief based on a bad reputation instead of actual knowledge, I consider more than probable; but that American boots and shoes can be made which will suit the market I consider equally certain. But this suiting of the markets is something which ought to be studied in a practical way by American manufacturers, by visiting this country and learning for themselves just what the people wear and what prices they pay. Then the ability to furnish equally good articles of the same styles at the same or lower prices, once established, it will not be difficult to establish a trade by getting English dealers interested, or by establishing houses on an independent footing, and sending practical and capable Americans to conduct them.

No plan, in my judgment, will be successful without an inevitable preliminary expense in "exploring" the field.

#### FAULTS FOUND WITH AMERICAN BOOTS AND SHOES.

The faults found with American boots and shoes have been already indicated to some extent. As I have intimated, I have no doubt that many supposed or alleged faults, of a general rather than a special character, would disappear upon an acquaintance with good specimens

of American work. But to designate the faults found with American boots and shoes, as far as practicable, I should say that the dealers, taking their cue perhaps to some extent from the manufacturers, like the latter, find fault with the leather, the chief objections being, as above recited, the spongy character and tendency to stretch too much through the effect of moisture. They also think the pegging or sewing not so well done. And as to what is termed the "finish" of the boot, in all respects they think the English work much the better.

This word "finish" means a great deal in this connection. It covers the finish of the leather itself—both sole and upper—before it comes into the bootmaker's hands. It includes the quality of the lining, if any lining is used, the quality of the laces (which for boots are made of very tough leather), and the fastenings of the eyelets, and every detail, of quality, of material, and style of workmanship, but not the shape of the boot, although I believe that for general use, particularly for the working people, the shape is as good as can be made.

There are no faults named or suggested to me that may not be remedied by carefully adhering to care in all the processes, from the treatment of the hides, warm from the animals to the finished boot or shoe.

On this subject I would advise those who propose to venture an effort for a permanent export trade to this country in boots and shoes, first, to offer to the English people directly, by establishing houses here, if possible, and if not, by sending competent and trustworthy agents with a good display of samples of well-made boots and shoes of various but staple grades, corresponding in appearance to the prevailing English fashions. The competition once reduced to the question of price, or, rather, when the American boot is no longer handicapped with a bad reputation—and that point must be reached at all hazards—the rivalry will be in minimizing the cost of production. But the manufacturers who must win in the end will be those who reduce the most the amount of labor required in the manufacture, by improving it in kind, efficiency, and value. Of course the capital behind the respective rivals is an element not to be forgotten. Interest on money, &c., and questions of finance and rates of exchange all have to be thought about, but none of these seem to me to handicap the American manufacturer seriously enough to keep him effectually out of English markets.

The workingmen and women and their children, as well as everybody else, are more ready to purchase a foreign article on its appearance than the English manufacturers are to make it. The English manufacturers will not countenance an innovation, much less imitate it, until it becomes so familiar that he forgets its foreign origin.\* Hence if the American exporter, by means such as have been already outlined, can work up a demand for boots American in style as well as in make, he will have a good trade secured for a considerable time. This is because the English manufacturer, working for the English market, will not allow any foreigner to come in and alter the fashion.

Meanwhile, the people will begin and continue to buy the boots and shoes, if they are cheap enough and good enough and they have learned to like the styles, and at last the English tradesman will begin to deal generally in them, and they will be put on the market in profusion. This has been the history of the trade in this country in various American articles, notably agricultural implements, such as hay-forks, scythes, &c.

To sum up the faults found with American boots and shoes. They

\* Or until the demand for it has grown so large that he is compelled to produce something like it in defense of his own trade.

are, that the leather is not so good as English (we sent them in 1884 26,772,892 pounds of it, but they say that so far as that went into the manufacture of boots and shoes it was used for making workingmen's cheap boots). I am sorry to say that I cannot very confidently dispute the assertion when I come to look at the values as well as the quantities of leather imported from other countries in the year 1884.

A statement of such imports runs as follows :

From—	Quantity.	Value.	Average price per pound.
	<i>Pounds.</i>		
British East Indies.....	27, 681, 117	\$9, 078, 377	\$0 30
United States .....	26, 772, 892	6, 940, 714	24
Australasia .....	12, 018, 218	2, 880, 101	24
France .....	4, 896, 979	3, 475, 742	73
All other countries .....	5, 387, 124	3, 958, 927	73

These figures show that whatever the extent of our exports of leather to Great Britain, the quality is not yet adapted to the fine work of the boot and shoe makers, but if, as the figures relating to boots and shoes would seem to indicate, some of our surplus fine leather is worked up into fine goods for the English market it is a hopeful rather than a discouraging symptom. For if we can sell them the leather for cheap boots and make from our own leather boots in successful competition with their own tanners and bootmakers, our position in the trade will not be a weak one.

The faults found with American leather seem to be largely inherent in the leather. The figures last given above do not contradict this assumption. They are very low compared with other countries, and only barely hold their own with Australasia and the East Indies.

#### ENLARGING TRADE IN AMERICAN BOOTS AND SHOES.

The foregoing portions of this report cover an answer to this question as definite as I can make. I can see no way to recommend that does not involve a considerable preliminary outlay which must be called also a risk.

A practical knowledge, a careful study, a rather venturesome confidence, aided by no insignificant capital, ought to be at the back of such a scheme.

But I wish to say that in my belief an American boot and shoe trade can never be well established in England through the agency of consular reports alone. That consuls can and will give valuable information upon all important features of the trade can be unhesitatingly promised, but it appears to me that the technical information to assure the success of such an undertaking as the one in question should be obtained through the eyes and brains of those who personally expect to superintend the work.

To lessen the expense incident to such a venture undertaken on the lines I have suggested, it seems to me that a syndicate, or something like one, might be easily made up by a combination of manufacturers of different kinds of goods, who would furnish boots and shoes of different varieties sufficient to stock a good establishment in London. This establishment should be furnished with a staff of clever, social, intelligent American commercial travelers. An American firm, or an

American syndicate, must establish a trade in this country in the same way that either of them would do at home, and, indeed, in the same way that English wholesale houses keep up their own trade at the present time.

#### IMPORTERS OF BOOTS AND SHOES.

There are no persons in this district engaged in the import of boots and shoes, and from what I have already said it will be clear that there is no place in the district where such an importing business could well be started at the present time.

Coming now to the close of these specific inquiries, I cannot do better than to quote verbatim the opinion of an intelligent gentleman, to whose views I have before referred, and who, at my request, devoted considerable time in investigating some branches of the inquiry. He said, "I have come to the conclusion that the Americans can make just as good boots as are made here, but the price is from 10 to 25 per cent. too high. They must, however, if they want to sell the better quality, improve the quality of their leather and look well to the finish." I am disposed to think the estimate of prices is more in excess of that of the English goods than the true conditions will warrant, but perhaps the present selling price or the cost of production, or both, can be reduced and leave a profit.

#### FORMER TARIFF DUTIES.

There are no import duties on hides, leather, or any manufacture thereof, imported into the United Kingdom. The duty on hides, raw or tanned, but not otherwise dressed, was removed in 1846.

The duty on boots and shoes, including boot fronts and all other manufactures of leather, except gloves, was abolished March 3, 1860. The average ad valorem rate of the duty at that time (the year 1859) charged on the total boots and shoes imported was 7.49 per cent. The duty, however, was specific entirely, and ranged, including boot fronts, from \$1.09 to \$3.41 per dozen pairs, according to kind and quality.\* This duty was imposed in 1846, but there are no figures available for ascertaining its ratio to the value of the imports prior to 1854. In that year the duty collected on boots and shoes imported into Great Britain amounted to \$44,305, which was equivalent to 9.02 per cent. of the value of the total imports.† Although the rate of duty in the mean time was not changed, the average price, which was 59 cents per pair in 1854, had risen to 79 cents per pair in 1859. This would indicate the diminished ad valorem rate of duty which appears in the calculations.

This duty was very low, and during the last eight years it was enforced averaged about 6 cents per pair on all the imports of boots and shoes and boot fronts entered for consumption. The low average of prices which these figures indicate is partially explained by the fact that more than half the number of "pairs" imported in the earlier decade, and even later, were "boot fronts" only, in place of the completed articles. They were largely imported until 1864, when, for some reason, the trade began rapidly to decline, and in 1865 only 46,248 pairs of them were imported, against 582,590 pairs in 1854, and in 1870 they were separately stated for the last time in the trade statistics.

They came almost exclusively from France, and in 1856 the average cost without duty was 63 cents per pair. In 1859 they averaged 68 cents per pair; in 1865, 63 cents, and in 1870, when they were last separately stated, they were averaged at 69 cents per pair. Although they were up to 1870 mixed with boots and shoes in the summaries or abstract tables of British trade, I have separated them in the tables I have prepared, and the columns of "Boots and shoes" include boots and shoes only, except for the years prior to 1854, for which I could not procure the requisite data for a separate classification.

It must be understood also that "official values" only are stated for imports prior to that date, that being the time when a system of estimated real values was first adopted for imports and re-exports in the trade and revenue returns of this country.

March 3, 1860, saw the end of a duty, certainly for a long time, on leather or its products imported into Great Britain, if we except gloves, which still continued to struggle against a tariff ranging from 2 to 5 cents per pair for about five months

\* Men's boots were rated for duty by the height of the quarter and vamp only.

† This and the calculations for 1860 include boots, shoes, galoshes, and boot fronts



longer (until August 1), when that import also had to succumb. The matter of import duties, therefore, has had no bearing on the shoe and leather trade with this country for a long time. The history of that question, however, is not without interest, and, if we go back far enough we find policies prevailing in great contrast with the present, along with many curious features of legislation, royal decrees, and foreign treaties. It was once more the policy of this Government to keep leather (in common with other products) from going out of the country than to encourage it to come in. So we find, in the long history of the tariff question in this country, which may be said to have commenced in due formality about the beginning of the fourteenth century, an import and export duty on similar goods prevailing at the same time. The export duty is the older, and, on leather, was fixed by statute in 1275. In 1303 the rate of import duties was established by convention with the crown (Edward I) and what I suppose was a syndicate of foreign merchants, and embodied in a charter; native merchants, however, were exempt from these import duties under the *carta mercatoria*, but they were subject instead to such "prisage"—another name for the same thing—as the sovereign might decree conducive to the "welfare of the Kingdom." It is needless to say that under these two systems the British importer fared little better than his alien competitor, for this prerogative was freely exercised by successive kings for centuries. Concerning the export customs, they were governed by statute only, and the native traders, of course, were always given the advantage. Sometimes the duties were levied on foreigners only. Among many curious laws which followed the history of these early duties, it was enacted in the reign of Henry VIII, that "customs should be paid on all leather exported at the rate of 4s. 1d. for every dicker of ten hides, exported by denizens, and 4s. 9d. for aliens, and that no tanner should henceforth export any leather on pain of its forfeiture."\*

#### PACKING OF GOODS, ETC.

Boots and shoes are offered for sale here very much in the same manner as adopted in the United States. Ladies' boots, and work generally of that character, are usually put up at the manufactory in small paper boxes, one pair in a box, like those I have forwarded. All other articles are displayed by the retailer very much as they are in the United States. I think their attractiveness in this respect could be improved by a more fancy label or covering for the box, or perhaps, in some other way. As to placing them in the wholesale English market no display is needed nor advisable. They should simply be packed securely and carefully so that the English tradesman could find no possible chance for distrust or suspicion, but they should be thoroughly prepared to look attractive, boxes and all, when they are arranged on the retailers' shelves, &c.

\* \* \* \* \*

EDWARD E. LANE,  
Consul.

UNITED STATES CONSULATE,  
*Tunstall, September 11, 1885.*

#### SHEFFIELD.

#### REPORT OF CONSUL WEBSTER.

#### LEATHER.

Upon the condition and extent of the leather industry of this consular district there is but little to be said, as the manufacture of leather is not carried on here to any considerable extent as compared with such large tanning districts as Liverpool and Leeds. There are a few tanneries in Sheffield and neighborhood, which are chiefly supplied with hides from the surrounding country, and whose output is consumed at home.

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\* Halls' Customs Revenue of England, vol. 1, p. 298.



## AMERICAN LEATHER.

There formerly existed a strong prejudice against American sole leather in England, it being easily recognized by its hemlock-tanned red color. But this prejudice has nearly disappeared, and American leather has now a large sale in all parts of England. It has the reputation of being more lasting and more impervious than the English, which qualities adapt it to use in this wet climate. It is consequently extensively employed in the manufacture of strong, heavy boots for the laboring population in town and country. The objection made to it is that it is not as soft and pliable as the English and French. The hides are not "rounded" (trimmed) like the English, and hence they are subject to much more waste, or "offal," as it is termed; and this is the reason why the English hides bring a higher price than the American. The American leather is largely consumed by the great boot and shoe factories, where every part and quality can be used to the best advantage. English leather of native hides, English tanned, is almost wholly consumed by the smaller boot and shoe makers throughout the country in what is called the "bespoke" trade. This relates to sole leather, as very little upper leather is cut up by the makers for the local trade. They order their "uppers" from the large wholesale manufacturers, who use largely American leather. The French calf leather is most highly esteemed. The superiority of French tanning and dressing leads to the sending of large quantities of English calf-skins to France to be tanned to be returned for use here in first-class work.

## IMPORTS OF LEATHER.

The total amount of leather imported into the United Kingdom from all countries during the year 1870 was 14,062,842 pounds. During the year 1883 the amount had risen to 74,718,266 pounds, an increase of 60,655,424 pounds.

The imports of hides, raw, wet and dry, during the year 1870 amounted to 1,199,050 cwt. In 1883 the imports were 1,196,849 cwt., a decrease of 2,201 cwt. This large increase of the importation of leather and the decrease in that of hides would seem to indicate that other countries are taking the tanning industry out of the hands of Great Britain. It is probable that a considerable proportion of this increase in importation is of American leather.

The average price of leather imported into the United Kingdom during the year 1870 was 38½ cents per pound; the price in 1883 was 34½ cents per pound.

## MARKET FOR AMERICAN LEATHER.

So far as this consular district is concerned there is but little probability that direct importation of American leather can be established. Very large wholesale stocks of leather, as of other American products, are kept in Liverpool, from which dealers here and in other inland towns draw their supplies in quantities to suit their convenience. The trade in inland towns is not sufficiently large to enable dealers to compete with the large houses in Liverpool and other ports.

## BOOTS AND SHOES.

The factory system of boot and shoe making is extensively employed in a few large towns, as Northampton and Leicester. As these towns

are not in my consular district I am unable to give definite information as to the extent of the industry. Machinery is largely used. The manufacturers send out their agents to every part of the country. They also obtain Government contracts for the supply of the army and navy.

#### CLASS OR STYLES.

Heavy brogans, laced, with soles studded with nails, are universally worn by laboring men. Buttoned boots and boots with elastic sides and calf kid tops are styles that are common for lighter wear in towns. But the laced boot is the kind that is now more generally worn than any other. The Oxford and Derby tie low shoes are much worn in summer. The old style clog, with wooden, iron-clad sole, still survives and clatters along the streets on the feet of a poorer class of work people. All kinds of boots require to be heavier here than in the United States.

There is a vast amount of what may be aptly termed "rubbish" sold as boots and shoes, made of the cheapest material, not all leather, and put together in the cheapest manner. If they be decently good looking they will sell to a large class of people who think only of present appearance.

#### AMERICAN GOODS.

The importation of American boots and shoes into this district is very small, if any. The common impression is that American boots are stylish, but have little wearing quality.

Judging from what I know of both English and American boots I am confident that the American will compare favorably with the English in that particular.

Whether they can be introduced into this market can only be satisfactorily determined by a practical man who thoroughly understands the trade. Such a man, sent out by American manufacturers to study the whole subject in different parts of the country would soon be able to form an intelligent opinion as to the possibility of placing their manufactures at a profit on the English market. The following facts may perhaps be of use in helping to decide the question. The total importation of boots and shoes into the United Kingdom from all countries, mostly Germany and France, during the year 1883 was 1,476,696 pairs. The value is given as \$2,049,837.93, which would be, as nearly as possible, \$1.38 per pair.

The total amount exported during the same year was 512,232 pairs, at a value of \$433,422.19, or 84 cents per pair.

The coming American exhibition in London during the year 1886 would seem to be a most favorable opportunity to place before the British public, as well as before many people of other countries, the products of American skill in the manufacture of leather and boots and shoes.

C. B. WEBSTER,  
*Consul.*

UNITED STATES CONSULATE,  
*Sheffield, June 16, 1885.*

## BRISTOL.

## REPORT OF CONSUL LATHROP.

## LEATHER TRADE.

There were imported into the United Kingdom in 1884 cattle hides to the extent of 1,217,747 cwt., and sheep and lamb skins to the number of about 8,000,000. There were, besides, 1,500,000 hides obtained from animals imported and slaughtered, making an annual consumption, including the domestic supply, of the value of about \$36,500,000, not deducting a considerable re-export.

The whole world combines to furnish these hides. Nearly every country in Europe ships more or less of them to Great Britain. From India and China come large quantities. From all parts of the American continent, from Australia, from South Africa, they are shipped in numbers. The import from the United States has increased from 14,000 cwt. in 1880 (valued at \$226,000) to 33,500 cwt. in 1884 (valued at \$447,700), while the export of domestic hides from the United Kingdom to the United States decreased during the same period from 44,673 cwt. (value \$426,121) to 6,800 cwt. (value, \$72,300). There have been in each of the years from 1880 to 1885 foreign hides to the value of about \$1,000,000 transshipped in Great Britain for the United States. It is a curious instance of the power of established trade lines and of the importance of England as a commercial center that hides are imported from the River Plate into New York via London.

Bristol is an important consumer of imported hides. There are here numerous tanneries, the six largest of which have a weekly out-turn of from 600 to 800 hides each. Tanners obtain their supply of Australian and Cape hides at fortnightly auctions held in London. South Americans they buy at private sale in various markets, Liverpool, London, Antwerp, and Bristol being among the important ones. These latter hides are a specialty with Bristol tanners, though not to the extent they were in the past, as of late years the demand for best selected Buenos Ayres leather has fallen off. Tanners have consequently been obliged to turn their attention to Australian and Cape hides, which are cheaper than South American, and which they can sell to their customers after tanning at a price which will compete with the imported American leather. In 1884 there were 134,812 South American hides imported into Bristol, a falling off in two years of 10,000. The domestic supply of hides, that is, those that are collected in Bristol and the vicinity, reach the tanners through a weekly sale.

The leather trade of 1884 [says the report of the Bristol Chamber of Commerce for 1885] has been characterized by great steadiness, an average volume of business has passed, prices have but slightly fluctuated, losses by failure have been small, and profits moderate. The abundant harvest seemed to promise a legitimate augmentation of the demand and some improvement in values, but this promise failed of realization, owing to the unusually dry autumn, which checked consumption and more than counteracted the immediate advantages of the larger yield of the soil. Our Bristol tanneries have, during the past year, in spite of the keener competition found sufficient outlet for their production, and though the large profits of former a declining demand for their specialty is sure to induce, held their own; they have days, when the tanning trade was not without some reason regarded as a sort of El Dorado, have not been nearly approached, the capital employed has not been without something like a fair remuneration. Prices stand about 3 per cent. lower than at the beginning of the year.

## TANNING MATERIALS.

The tanners use principally valonia, imported direct from Smyrna; 6,570 tons of this were imported into Bristol in 1884. Oak bark from Devonshire and the vicinity is also used. Sumac, from Sicily, is used somewhat by curriers, in the form of powder. Hemlock extract, made in Canada, is used to the extent of about 100 tons a year. Extract of oak wood from Southern France is used to the extent of 150 tons annually. About 20 tons of an extract of chestnut, made in France, is used each year. All these extracts are principally, if not entirely used in making sole leather. There should be a market here for our American extracts; and I should be pleased to communicate more at length with any of our manufacturers in this line.

## MARKETING LEATHER.

The market for the Bristol make of leather extends throughout the United Kingdom, and to some extent on the Continent. There is a large local consumption of the output, there being many boot and shoe factories in Bristol and its vicinity. Tanners as a rule do not sell direct to customers, but employ the agency of the factor, who sells for them upon commission. These factors also handle the American import of leather, therefore some account of their methods will not be without value. Producers and manufacturers of the present day complain much of the middleman, and want to be rid of him. The tanners are not behind in this respect, and some have tried with more or less success to eliminate the factor; but they generally find in the end it is cheaper and more satisfactory to employ him. He has an established connection and employs one or more travelers, thus reaching a market it would not pay the tanner, single-handed, to attempt. This commission is small, in London only  $2\frac{1}{2}$  to 3 per cent., which must cover all expense and risk, the commission being *del credere*. The terms with American exporters are as follows on consignment goods to Bristol, viz, 4 per cent. commission, besides a discount of  $2\frac{1}{2}$  per cent. for cash, or four months' time. Advances are made against consignments to 75 per cent. or 80 per cent. of their value, for which interest is charged at the rate of 5 per cent. per annum.

Messrs. Davies & Co. are the largest importers of American leather in Bristol. They do mostly a consignment business, their terms being as above. They write me as follows:

When goods are sent to us on consignment they are immediately placed before our clients in all parts of the country, by means of our travelers. We reach all classes of leather consumers in this way. The consignor draws on us for somewhat more than two-thirds, partly at three days and partly at sixty days after sight; for these advances we charge 5 per cent. interest.

Messrs. Theodore Hunt & Co., of Queen Charlotte street, Bristol, also take consignments of American goods. They also buy direct and outright sometimes; and they always keep in stock American waxed splits and hemlock sides. Their terms are the same as those of all factors, viz, 4 per cent. Messrs. R. H. & H. Ashman also handle American goods, buying outright as a rule, as do also Messrs. Dove & Wilcox, of Victoria street, Messrs. Herapath & Co., and Messrs. Lindrea & Co. In purchasing from the American broker in New York these firms pay cash; the broker attaching a sight draft to bill of lading. His commission being a small one, usually 1 per cent. from seller and  $\frac{1}{2}$  of one per cent. from buyer, he cannot afford to run any risk, but this mode of doing business

necessarily keeps the trade in few hands, as buyers as a rule do not care to make heavy payments for goods that may not be warehoused for seven days after payment, and then turn out indifferent. There are, as a result of this system, large factors in England who are compelled to keep in stock some American leathers, who buy from Liverpool, Bristol, and London importers instead of importing direct, as they have in this way the important privilege of examination before purchase, and are not obliged to trust blindly to the discretion and integrity of a far away broker. When purchases are made direct from the American tannery, the system is somewhat more liberal, as tanners will usually send bill of lading direct and allow draft to follow in about fourteen days, which is much more satisfactory, as goods can be handled before payment is made.

#### AMERICAN LEATHER.

The imports of leather into the United Kingdom in 1884 was about 77,000,000 pounds, of which about 27,000,000 came from the United States. The direct import into Bristol in 1884 was, of undressed leather, 671,860 pounds; of dressed leather, 242,530 pounds, nearly all of which was from the United States.

American leather [says the report of the Bristol Chamber of Commerce] retains the favor of our English shoe manufacturers; indeed, by its intrinsic worth and proved adaptability to the wants of our country, it has taken such a firm hold on the consumers' appreciation that its sale here is assured, except when the exigencies of the American market disturb in an unusual degree the balance of values. During 1884 a very large import of both sole and upper leather has been recorded, and it is gratifying to note that such import has passed through Bristol houses to a much greater extent than in any previous year. Prices at the close of the year are about the same as those current at its commencement.

The import consists of hemlock-tanned sides, waxed splits, satin hides, glove hides, and patent hides. Within the past few months some import has been made of oak-tanned and union backs. The hemlock-tanned sides do not come into competition with other leather in this country. They have the field to themselves for the manufacture of certain kinds of men's heavy boots; and thus while a permanent and enlarging market is open to them it is not possible to materially increase it by vigorous attempts to displace similar English leathers, there being none to displace. As Bristol and its vicinity have many boot and shoe factories, most of which turn out the very product that needs these sides, it is evident that it will continue to be a market for this leather, and that each year the import will increase. Besides this, Bristol is an established leather center, with established lines of trade diverging all through the Kingdom. Travelers from Bristol are constantly traversing all sections, displaying samples of their stocks. They sell largely in Birmingham and Leicestershire, this latter being the great center of boot manufacturing.

On the other hand, the American waxed splits and satin hides come into direct competition with similar English products. They have made their way by their superiority. They are generally held to excel the similar English makes in regularity of substance, amount of surface, and in having a finer finish. "Our makers of these goods," said one well up in the trade to me, "cannot supply the same quality at anything like the price they are imported for."

"Patent hides," writes a factor, "compete favorably with our home production when they come to hand in good condition and are of a good substance, so that we can put them into a manufacturer's hand with some



degree of confidence that they will not tear or crack, these being the principal faults with a number of makes now imported from the States."

The union backs directly compete with the English bark-tanned butts. They have not been favorably received by the manufacturers on account, it is said, of the way they are rounded or trimmed. The quality of the leather is highly esteemed, however. The English butts are placed in the manufacturers' hands with the whole of the shoulders and the bellies trimmed off. The American backs are rounded like the English as regards the bellies, but the shoulder is left. This injures them in the buyer's estimation, as do also the brands, which the English are free from. While the opinion of several in the leather trade has been that the rounding of these hides was the main thing against them, others have thought differently. One factor writes me thus :

Our opinion is that they will not be bought largely in this country, however rounded, as they will not and cannot be made to compare favorably with English-tanned leather made from English hides.

Another writes :

These backs cannot compete unless they can be put on the market about 15 to 20 per cent. less than they now are.

One of the largest boot and shoe manufacturers in this district advanced very strongly the opinion that these backs could not be made to compete in price with the English butts. He says :

The leather that we want and can use is your first-class hemlock-tanned, with a soft (non-acid) finish, pliable, and of good color. Our factors dare not import the highest grade, such as I want, and as lots more want. They dare not import at more than 21 or 22 cents a pound, and I was obliged to go to America myself and arrange with your tanners for a regular supply of their very best hemlock-tanned leather. It costs me a cent or two more than what you usually send over, but it pays me to use it, its quality is so fine.

It should be explained that the out-turn of this manufacturer is of a high grade, and that a quality of hemlock-tanned leather, not quite so good as he uses, finds a large market here. I am assured, however, on all sides, that what he says as to a soft finished, pliable leather is true of all grades of hemlock-tanned. Those treated with acid and of a hard unyielding substance are not desired.

#### ENLARGING THE MARKET FOR AMERICAN PRODUCTS.

It would pay a large tanner of these soft-finished makes to establish a depot in this country and maintain a traveler who should visit the boot and shoe manufacturers. The depot is necessary instead of shipments direct to manufacturers, because, as a rule, these latter do not order in sufficient quantity to enable the tanner to handle and ship with economy. The import of undressed leather into the United Kingdom from the United States in 1884 was valued at \$3,710,109. Suppose that of this amount \$1,710,000 (a high estimate) represents leather sent direct to consumers. There remains as shipped through factors and agents leather to the value of \$2,000,000. This at 4 per cent. represents a commission to the English factors of \$80,000, an amount sufficient to maintain many depots and travelers. Suppose that any one tanner had a trade with England through factors of a million pounds, valued at, say, \$220,000. The factors' commission is \$8,800 for selling this. Now the tanner's depot would cost him for rent, say, \$2,000 (a liberal estimate) : this commercial traveler would cost him for salary \$1,000 ; for expenses \$5 a day for each working day, say, \$1,500 ; his manager at the warehouse, \$1,500 ; two laborers, \$500 ; incidentals, say, \$500, making



in all \$7,000; leaving a margin of \$1,800 between his expenses and the factors' charges, and all this time his traveler is working for him alone, is studying his interests solely, and is, if a proper man, increasing his trade.

Or the principles of combination and co-operation might be here applied with advantage. Suppose two or three tanners whose make is different, one turning out enameled or japanned leather, the other hemlock sides, and so on, combine to pay the expenses of a branch in this country, maintained upon, at first, a modest scale. The result will be immediately apparent in the increased orders and the steady growth of the trade. Of all the single factors in the commercial aggrandizement of England none has helped so much as her custom of sending abroad her own sons to represent her various interests.

#### SHOEMAKING IN BRISTOL.

Shoemaking is carried on in Bristol and its vicinity so largely as to be justly considered one of the staples. There are from ten to twelve large factories whose weekly out-turn varies from a minimum of 2,000 to a maximum of 10,000 pairs each. There are also numerous smaller factories. Machinery is used to a considerable extent, but far less than in the United States. There is much less of work carried on in the homes of the operatives than in the shoe-manufacturing centers of the midland counties, and there is thus a considerable economy of time and labor. The class of work turned out in the city itself is of medium quality, strong, substantial, and durable. It is specially adapted for the middle and working classes, and comprises chiefly women's and children's riveted, machine-sewn, welt-sewn, and standard screwed shoes. A small quantity of men's buttoned shoes are also made in the same varied styles. Boots, as we understand the term in the United States, are not made at all; nor are they worn except for hunting and similar purposes. The styles of the uppers are chiefly buttoned and balmoral or laced. Elastic sides are made to a very limited extent.

The bulk of the make in the towns and villages adjacent to Bristol is of heavy hob-nailed boots for men, women, and children. The leather is usually waxed-kip or splits. The goods are riveted and hobbled or nailed, and all laced either quarter or Derby-shaped.

Sizes are as follows: Children's, 4s to 6s; 7s to 10s; 11s to 1s; boys, 11s to 1s; 2s to 5s; women's, 2s to 7s; men's, 6s to 11s; and they are made in all shapes, round, square, and narrow toes, the demand for the latter becoming more and more limited.

Their market is all over the kingdom, especially in the smaller towns, where durability and capacity to stand hard wear is the desideratum. Not more than 8 to 10 per cent. are exported.

#### AMERICAN SHOES.

There is no import here of American boots or shoes. They are lighter in make both in upper and bottom, and are consequently not well adapted to withstand the penetrating damp of this climate. Nor does it seem likely that we could open a market here by adapting our styles to the requirements, for I do not think we could give any advantage in price. The ordinary hob-nailed hemlock-tanned sole leather shoe, made throughout of good stuff and of great endurance, sells, retail, for about \$1.75 to \$2.25. A respectable nailed buttoned shoe can be had for

\$2.75, and the best makes of men's machine sewed shoes sell for about \$5, while the finest made-to-order foot covering that can be turned out comes to about \$7.

Of the half-million dozens of pairs exported from this country each year a very few find their way to the United States. They are higher in our markets than our own makes, are of no better material than our first-class work, and are inferior in grace and elegance to the handiwork of our own artisans. It might naturally be asked why any, under these conditions, are sold at all; but the reason lies in the peculiar desire implanted in some to clothe themselves in articles of foreign manufacture regardless of the intrinsic worth of these productions.

The great market for England's shoe leather is Australasia. Nearly a quarter of a million dozens (value \$3,466,851) were sent there in 1884. The South American states and the West Indies (and to a very limited extent Canada) are supplied largely from Great Britain. Had we as a nation the same genius for distribution that we possess for production we should soon supplant this trade.

*Exports of boots and shoes from the United Kingdom in 1884, showing the countries to which exported.*

Countries.	Quantities.	Values.
	<i>Dozen pairs.</i>	
Holland .....	12, 588	\$105, 131
Egypt .....	3, 854	51, 409
United States of Colombia .....	5, 180	91, 785
Chili .....	4, 243	53, 294
Brazil .....	40, 024	720, 334
Argentine Republic .....	12, 519	152, 030
Channel Islands .....	8, 934	109, 170
British possessions in South Africa .....	101, 110	1, 542, 252
British India:		
Bombay and Scinde ..	12, 513	214, 573
Bengal and Burmah .....	10, 565	164, 292
Australasia .....	247, 351	3, 466, 851
British North America .....	2, 935	55, 958
British West Indies .....	41, 997	550, 103
Other countries .....	22, 731	389, 188
Total .....	526, 544	7, 686, 370

*Imports of boots and shoes into the United Kingdom in 1884, showing the countries whence imported.*

Countries.	Quantities.	Values.
	<i>Doz. pairs.</i>	
Germany .....	957	\$17, 053
Holland .....	15, 539	243, 879
Belgium .....	48, 671	479, 288
France .....	44, 632	954, 149
Other countries .....	1, 315	19, 104
Total .....	111, 204	1, 713, 473

LORIN A. LATHROP.

UNITED STATES CONSULATE,  
Bristol, September 7 and November 30, 1885.

## FALMOUTH.

Consul Howard Fox writes (June 30, 1885) :

No imports of leather, or of boots and shoes, have taken place in this consulate.

The tanning trade, which was formerly carried on in this neighborhood, has of late years greatly fallen off, and at the present time it is almost extinct, owing, as it is stated and believed, to the inability of the tanners to produce "butts" at the prices at which the article can be imported in other parts of England from the United States.

The population of this district is comparatively small, and such boots and shoes as are not "home-made" are generally obtained from wholesale people carrying on business at Bristol, Northampton, and elsewhere outside of this district.

I know of no persons engaged in either of the trades referred to, who could be recommended as being likely to be induced to become importers from the United States.

HOWARD FOX,  
*Consul.*

UNITED STATES CONSULATE,  
*Falmouth, June 30, 1885.*

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**SOUTH WALES.**

*REPORT OF CONSUL JONES, OF CARDIFF.*

**LEATHER MANUFACTURE OF GREAT BRITAIN.**

Free trade in leather has only been enjoyed in this country during the last fifty-four years. The previous history of the industry is full of curious examples and instances of petty restrictions and arbitrary divisions of labor. At one time tanners were prohibited by statute from selling hides which had not been nine months in the tan-pit. The wages of workmen were fixed by law. Tanners were prohibited from being shoemakers, while butchers were precluded from making leather. But the last of the many annoyances were removed by a bill which passed into law in 1830, during the reign of George IV. Since that time the industry has made substantial progress. Seventy million pounds of hides, composed of 40,000,000 British and 30,000,000 foreign, were manufactured into leather fifty years ago; whereas now upwards of 200,000,000 pounds—of which two-thirds are imported hides—are annually manufactured. The 8,000,000 head of cattle of Great Britain and Ireland are altogether insufficient to supply the demand of the tanner, and hides are largely imported from Montevideo, Buenos Ayres, the United States and Canada, Lithuania and other provinces of Russia, as well as from Germany, while horse and ox hides are largely imported from South America. The skins of sheep, lambs, and the kangaroo reach this country from the Australian colonies; and hog-skins are imported from Russia and continental Europe.

**LEATHER MANUFACTURE IN SOUTH WALES.**

South Wales takes an important position in the coal trade as well as in the iron, tin, and steel industries, but not in the leather trade. There are only four tan-yards within this consular district, which practically embraces industrial South Wales, and these are situated, one at Cardiff, one at Newport, one at Bridgend, and one at Swansea. The tan-

neries of Cardiff and Bridgend are each capable of tanning 300 hides per week, but those situated at Swansea and Newport are of lesser importance, their capacity being about 100 hides per week. The hides required for these manufactories are procured from the butchers of the district and adjoining counties. Hides are not imported from abroad, either directly or indirectly, into the towns of South Wales, and the prices paid in the local markets range from 3½d. (7c.) to 6d. (12c.) per pound.

#### TANNING MATERIALS.

The materials used in the manufacture of leather are manifold, including the bark of oak and other trees; and it may here be remarked that bark cut in the spring is said to contain four times the quantity of tannin that can be extracted from bark cut during winter. Moreover, young oak trees yield more valuable bark than do old ones. Formerly oak bark was used to the exclusion of every other material for tanning purposes. It has long since been discovered, however, that the addition of other chemical elements is a decided improvement. The materials introduced since the discoveries made by Sir Humphrey Davy, about eighty years ago, include catechu and cutch, imported from India; gambier, from Singapore; divi-divi, from Maracaibo; and valonia and sumac leaves, chiefly from Turkey.

#### TREATMENT OF HIDES.

It will be understood by those for whom this report is intended that the treatment of hides is modified by a variety of circumstances. One of the most important of these is that which goes to show that the best leather is produced from fresh hides, and through the chief instrumentality of oak bark. The salting of hides, which is necessary for the purposes of exportation, is attended with injury to leather produced from such hides.

The hides are conveyed to the tanneries from the slaughter-houses and smaller butchers, with the wool and hair still upon them. Here, at what is called the "fell-monger's yard," they are spread out, beaten with mallets or sticks in order to free them from dirt and clotted blood, and then washed in large tanks of clear water. Next follows the process of painting the inside of the hides with a thick liquid of lime, after which they are hung up to dry, first in the open air, and next in heated presses. It has been found that the use of lime reduces the weight of the hide, but all attempts to do without it seem to have been unsuccessful.

The hides are next taken down, spread over blocks, and unhaired. Great pains and dexterity are exercised by the men engaged in this work in making proper distribution of the hair, both as regards color and quality, into the boxes placed in front of them.

The hair is subjected to a further process of selection before it leaves the fell-monger's yard.

The skins are now removed into lime pits, where they remain for a few days and until they are in condition for tanning. At this stage of the process hides are often split in two, by means of an oscillating knife worked by steam. By this means the skin is divided with the greatest precision. It will be known to the trade that skins so operated upon are more porous and are inferior in quality to leather made of whole hides. The trade terms used in connection with split leather are, for the grain side, "split hides," and for the inner or flesh sides "splits." After leaving the lime pits the felts or hides are washed and cut into what are known as "butts," namely, the thickest part of the hide, excluding shank pieces, belly, cheeks, neck, and shoulders, and are then placed in tan-pits.

The pits are arranged in shifts of eight each, containing tanning liquor of different degrees of strength, and designated "green shift" and "forward shift." Shifts are also divided into "floaters" and "dusters," floater pits being those where the skins are allowed to float in the liquor; and dusters are so named because each skin is separately dusted with fine oak bark and then packed into the pits.

After the "butts" have been subjected to the influence of the tanning liquid for from four to six months they are advanced to the "striking" process. In this stage powerful machinery is used to compress the leather and give it solidity; but the striking process for the best-hided leather is still done by hand labor. Butts are

operated by machinery consisting of gun-metal rollers running over a zinc bed. During this operation the leather is compressed while it receives a smooth surface preparatory for market.

#### HARNESS LEATHER.

Harness leather is rubbed with linseed-oil in the dry state, and beaten until the required shade and consistency is secured; and the polish is enhanced by the use of sweetened milk or a solution of crocus. For bleached harness a mixture of sheep tallow, borax, and linseed-oil is employed to rub the skins on the inner side.

#### TREATMENT OF SHEEP-SKINS.

Sheep-skins and lighter leather are subjected to treatment similar to that already described at the felt-monger's yard. They are then immersed in lime-water pits, where they remain for about a fortnight, being removed at intervals to stronger solutions of lime. They next undergo the process of "fleshing on the beam." The skins are placed on a sloping block having a convex surface, and with the use of a two-handled knife particles of flesh are removed. They are then piled up for from twenty-four to forty-eight hours. Next comes the splitting process, where the skins are divided by machinery. The skin is fixed by steel hooks attached to a roller, and is passed over a straight edge, being pressed against it by means of a spring bar. A very sharp horizontal knife, worked by a crank and connecting-rod, oscillates backward and forward rapidly, thus dividing the skin as it is drawn by the roller over the straight edge. Before this machine was invented the only means of thinning skins was to pare them down; but by the method described one skin is practically converted into two. Even seal-skins are split by this machine, and the inside is available for inferior purposes. The technical name of split sheep-skins is "skivers," while the whole skins are called "roans." Roans are placed in revolving tubs capable of holding ten dozen each. These tubs have the appearance of a washing-machine, and water is made to run continuously through them. The roans are next immersed in a solution of dog's dung and worked on a beam. A slate-knife is then applied to remove all the fine hairs which may remain from the former process. The skins are next placed under a hydraulic press, twenty dozen at a time, by which means the fatty matter and moisture are squeezed out of them. The skins are then sorted, and the coarse ones sent to the tan-pits, while those intended for more delicate use are subjected to different treatment. This separation is made necessary from the fact that the bark process leaves the color in the skin, and for many purposes of finer work, such as gloves, hat-linings, &c., this would be objectionable. The skins are drenched in a mixture of bran and water for softening purposes, and submitted anew to the action of the knife; then the fine skins are immersed in a weak solution of sulphuric acid, and again immediately washed in water. These skins are next sewn up into bags by girls [who receive 18d. (36 cents) per dozen bags sewn for their work], and filled with a warm decoction of sumach, scientifically called *Rhus coriaria*. The bags are also kept floating in sumach liquid during several hours, after which they are taken out and the liquor allowed to ooze or is squeezed out of the pores of the skins. This process occupies about twelve hours. The skins are again opened out, "struck," and hung in open lofts, when they reach what is known as the "crust" stage. Goat-skins, for imitation morocco, as well as calf-skins for binding, are tanned by this process.

#### TREATMENT OF SPLIT SKINS.

The treatment of "skivers" or split skins is considerably modified, less severe chemical action being sufficient. "Skivers" are divided into those intended for the dye-house and those which are to be white. To the latter, plaster of China clay is applied, after which they are rubbed with white of egg and rolled into a finished, glossy state. In the dyeing-house a large variety of chemicals are used, such as logwood and hematine, which has a metallic luster, formed out of logwood extract long kept, and available for bronzed leather. To obtain red color cochineal, sorrel, salsola ericoides, and basil wood are used, and to obtain other colors saffron and sumach are available. Solutions of apricot, myrtle, rose-chestnut, cherry, hazel, ash, tormentil, sallow poplar, plum, beech, alder, black willow, olive, cinquefoil, bistort, ladies' mantle, water flag, mimosa, and souchong tea are also utilized by dyers of leather.

Shaving is the next process, and this work requires a great deal of skill, which is only acquired after long training. The object of this work is to equalize the thickness and to remove faults in the skins. The splits of sheep-skins, treated with fish-oil, are converted into what the trade calls chamois leather. Calf-kids are for the most part made of young calf-skins, carefully fleshed by machinery, finished with the use of flour, the yolks of eggs, alum, oil, and salt. One firm on the Thames is said



to use no less than 10 sacks of flour and the yolks of 2,000 eggs for this purpose every week. After the skins have been finished, dressed, and dyed by what would seem to be a mixture of size and tallow, calf-kids are ironed by girls much in the same fashion as pocket handkerchiefs are ironed, by hand.

#### FRENCH GLAZED KID.

French glazed kid is made by putting skins into what is known as the "white bath" after having been drenched. The white bath is a solution of alum and salt, to which is added, after a short time, a paste consisting of heated white flour and the yolks of eggs.

#### TRANSPARENT LEATHER.

What is known as "transparent leather" is treated from the raw hide by the use of glycerine and alum. The piece of hide is limed, fleshed, pared, rinsed, scraped, stretched on a frame, and dried. It is then put into a mixture of glycerine and water, containing small quantities of alum, and no shadow of dyeing matter.

It goes without saying that the currier's handiwork is largely required to give softness and regularity, especially to the larger skins, every variety of leather requiring variation of process, all intended to give suppleness and finish to the work. But any attempt at detailed description of the various processes necessary in the production of the great variety of leathers would require much more space than would be appropriate in a report, and much more knowledge of the subject than consular officers can pretend to.

#### MOROCCO LEATHER.

Morocco leather, formerly imported from the Barbary coast, is now largely produced in this country from goat and sheep skins. These skins are also used for imitation of morocco. It is dried on the outer side, and the finisher gives it a peculiar ribbed, granulated surface by means of engraved box-wood balls, which he works upon the surface. The familiar aroma of Russia leather is derived from the use of birch bark, containing a peculiar oil, in the tanning process. This leather derives value from the fact that its odor repels moths and insects, and it is said that the presence of a few sets of books bound in Russia leather in a library constitutes a safeguard against insects for the entire library.

The quantity of leather manufactured in this district is necessarily small, being almost exclusively confined to skins of light weight. The leather thus produced is used chiefly for harness-making and boot uppers, and finds a ready market in the Channel islands. All imported leather reaches this district through the wholesale merchants at Bristol, London, and elsewhere, and consists chiefly of Buenos Ayres "butts," East India "kips," and American "sides" and "splits." The indirect importation is considerable, but statistics dealing with the amount are not available.

#### AMERICAN TANNERS AT FAULT.

American leather compares favorably with the manufactures of other countries, and since its price is lower it finds favor in the market. For the manufacture of boots and shoes, and especially for the cheaper class of goods, it is indispensable. Certain faults are found with it, though they are due not so much to the inferiority of the article itself as to the fact that it is put to uses for which it was never intended. The offal parts of American sides are used by English manufacturers as outside soles of boots and shoes with unsatisfactory results. The remedy for this lies with the tanners. These American sides are tanned with a large portion of the "belly" left on. Moreover, they are not as free from flesh as they ought to be. The object of this is obvious, and is recognized by the trade; but it is a mistake. "Sides" should be thoroughly cleaned, all the offal removed, and then made into "butts." If this were done American leather would command a better sale here, and English manufacturers would be deprived of the power of putting it to uses for which it is not adapted. Another objection is raised to American satin hides. They crack before much wear has been afforded



by the leather, and this tendency to "crack" is deemed such a fatal objection that several manufacturers have ceased "cutting" them on this account alone.

#### HOW TO INTRODUCE AMERICAN LEATHER GOODS.

As with other American manufactures, so also with leather goods; the best means of introducing them to this market would be, first, to send experts to examine the ground and ascertain precisely the kind of goods required; then, second, manufacture to meet the requirements, and, third, send intelligent representatives into the district to sell, at first, at all events, from sample. It is certainly difficult, if not altogether impracticable, for manufacturers to unite in founding a central depot for Europe, or at all events for the United Kingdom, in London, and supply the trade from that center. This much, however, might be done: It is known to the trade that the American exhibition will be opened in London in May, 1886. It would seem an excellent opportunity for American leather manufacturers and firms engaged in the boot and shoe trade to bring their wares prominently before European buyers and consumers. The goods would naturally attract attention. They would be noticed by the press of the country, and come under the eye of thousands of people who will probably visit the projected exhibition. Once a market is created here in South Wales, the mere transportation of the goods would be without difficulty. Goods could be shipped at through rates via Liverpool, Glasgow, Swansea, or direct to Cardiff.

#### BRITISH AND FOREIGN BOOTS AND SHOES.

No duty is levied upon boots and shoes imported to this country, and the wants of the people in this regard are largely supplied from abroad. Indeed, it is asserted that boot and shoe making is a declining industry in the United Kingdom. About twenty years ago there was 1 of these artisans for every 103 inhabitants, whereas now the percentage is as 1 to 125. The adaptation of the inventions of Howe and others in sewing-machines has had a marked influence upon the industry in driving hand-workers out of competition. It is estimated that a single Massachusetts factory turns out as many pairs of boots per annum as the 32,000 boot-makers of Paris. But the American machine is now in very general use here and on the continent, and especially in Austria, where 2,000,000 pairs of boots are produced each year. The largest imports to this country are perhaps from France, and come in the form of boots and shoes for ladies' wear. It is asserted that fashion and easy fitting are better combined by French makers than by those of England.

Northampton is pre-eminent among English towns in the boot and shoe trade, that industry being the chief source of revenue of the inhabitants. London, Bristol, Leicester, Stafford, Kettering, and other towns, take an important position in the trade. So much, however, cannot be said of any of the towns of the principality. There are only two boot and shoe factories within this consular district, which includes the populous and manufacturing towns of South Wales. They are situated at Abersychan and Brynmawr, and employ about 100 hands each. At these factories machinery is used for stamping out soles, uppers, and other pieces, as well as for sewing purposes. The machines chiefly in favor are Wheeler and Wilson's and Jones's patents.

#### STYLES.

It may be generally stated that English style differs from that of American, first in the toe, which is here rounded and more or less

pointed, against the prevailing square toe of America. What is known as the "Derby" boot seems to be the most generally favored. It is laced by the use of half a dozen sets of holes and three or four hooks to complete the lacing and fastening in the center of the upper. This boot is usually made with a toe cap, more, perhaps, for supposed ornament than for any use. The Derby shoe is also in favor.

For lighter wear the blocked elastic-side boot is largely used, and these are made in great variety. Sometimes the uppers are of one piece fastened behind, with the elastic spring set in at the sides; others are made of two pieces joined at the sides, while others again are made of calf and kid uppers and are called "side-spring joined galoshes." Some are made with kid uppers fastened with buttons, while mock buttons may also be seen on elastic-side boots of similar appearance. But the fashion in this regard is infinite, and the illustrated trade catalogue of a large firm will show at a glance the variety of style and material used in the manufacture of these boots. The same remark applies to ladies' boots and shoes, with the modification that they are much lighter while the heels are higher and more delicately made. The sizes vary from 6's to 10's, inclusive, for men, and from 2's to 7's, inclusive, for women.

In the three important shipping towns of this consular district there is a fair demand for high and medium legged sea-boots. These require to be well and strongly made of good water-proof materials. The high-legged boot should have a top of 18 inches high, and such a boot would retail for \$4.86. The half sea-boots are made in different sizes and would command prices as follows:

10 inches high, about 13s.,	= \$3 15.
14 inches high, about 15s.,	= 3 64.
16 inches high, about 17s.,	= 4 13.

These sea-boots are generally pegged, for which class of work there seems to be a decided preference. American makers should be careful, in making pegged boots, not to rivet the upper on to the inside sole with iron sprigs, since customers object to the use of iron, owing to its liability to rust. Although this objection does not apply to brass sprigs, the public prefer wooden pegs.

Hob-nailed boots are almost entirely worn by the working classes, and this remark applies to dock laborers, miners, cartmen, agricultural laborers, and others. Men engaged in the iron, steel, and tin industries wear a lighter and cheaper boot.

As already indicated, this is not a boot-making district. The quantity manufactured here is insufficient for home demand, and supplies are obtained from Northampton, London, Leicester, Bristol, Kettering, and other towns.

Boots of American make are not imported, directly or indirectly, into this district; but English manufacturers who make boots on a modified pattern of the American style find a market for their goods here.

#### AMERICAN GOODS.

As already indicated in connection with leather, the best means of introducing American goods of this class into the principality would be to study the requirements of the district on the spot, manufacture boots and shoes to suit the market, and then send intelligent representatives here to sell from sample.

What has already been advanced concerning the central depot in London, and of the good use which might be made of the forthcoming

exhibition, is applicable to boots and shoes, and to leather in smaller degrees.

There would be no difficulty in procuring respectable firms in the trade to act as agents for the sale of American goods. The following-named firms would probably be glad to undertake agencies for the sale of this class of American goods upon mutually advantageous and satisfactory terms. Mr. W. B. Davies, Mr. H. Arkell, Messrs. Boyle & Co., Cardiff, Messrs. John Beer & Son, Newport, and Mr. Aukland, Swansea. These, however, are points which can be more satisfactorily settled through correspondence with the firms than in connection with a public paper of this nature.

The firms consulted for the purpose of this report have laid great stress upon the importance of placing the goods upon the market in the most attractive manner possible, in order that customers might be attracted by the neat and workmanlike appearance of the goods, and thereby be induced to purchase. Moreover, it has been pointed out that if American boots and shoes are to grow in popular favor in this district, they must be strong and substantially made. They should also be carefully packed in boxes, and special care exercised to protect them from the cases, whereby chafing or grazing might ensue.

This is essentially a consuming district. It cannot be pretended that the boot and shoe trade is overdone here. The district is largely supplied from without; and if American manufacturers will study the market, manufacture to suit it, and sell at moderate prices, business can undoubtedly be transacted throughout South Wales and Monmouthshire.

EVAN R. JONES,  
*Consul.*

UNITED STATES CONSULATE,  
*Cardiff, June 6, 1885.*

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## IRELAND.

### REPORT OF CONSUL PIATT.

#### LEATHER INDUSTRY.

The leather industry is not now very extensive in the south of Ireland, or in Ireland at large for that matter, there being at present less than one-fourth the number of tanneries which existed thirty or thirty-five years ago, when the production of leather was one of the principal branches of manufacture in Cork and throughout the country.

Since that period it has, in conjunction with many other trades, steadily declined; a result due probably, in the first place, to the great famine and the exodus which followed, from the disastrous effects of which the country has never since fully recovered. This decline may next be attributed to the great extension and improvement in machinery for making boots and shoes, which enabled English manufacturers to flood the country with their products, while the Irish were too poor, as a rule, to adopt the same appliances, and they would scarcely have been supported if they had even done so, so great was the apathy which until recently prevailed on the subject of native industries, and the poverty of the people easily persuading them, in buying boots and shoes, to purchase the cheaper ready-made imported article, although they knew

it to be of inferior value. Again, the Irish leather being almost exclusively tanned with oak bark, the process, though the leather thus produced is much more durable and repellant to moisture, was not rapid enough to compete in price with the products of countries where various chemicals are used to quicken the manufacture. Lastly, it is claimed the trade laws have operated against this industry—laws to which the Irish people, though having little voice heretofore in the framing of them, have been compelled to submit. As a consequence of these several drawbacks and hindrances, the trade would probably have become extinct ere this but for some local advantages, such as cheaper labor and a preference which some have maintained for the bark-tanned Irish leather.

There now seems to be a prospect of a gradual restoration of the trade to its former position, of course under more modernized conditions, in connection with the extension of the factory system to boot and shoe making in Ireland, resulting from the present industrial revival, and as it is there are three or four exclusive tanneries in the city of Cork, with others at Bandon, Mallow, and elsewhere, in which butts or sole leather, as well as upper weather, are produced equal, if not superior, to similar classes of goods sold in any market.

Messrs. Hogarty Brothers and Messrs. D. Ryan & Sons, of Cork, make a quality of upper leather that is considered superior to that of any other manufactured in the United Kingdom, while Messrs. Dunn Brothers, of the same city, have the largest tannery of sole leather in Ireland, and are said to produce the best.

#### SOURCE OF SUPPLY OF LEATHER.

The hides and skins for upper leather are as a rule procured in Ireland; those, or the greater portion of those, for bottom or sole leather are imported from South America, chiefly from Buenos Ayres. The native hides cost from about \$3.50 to \$4.50 and the foreign from \$9.75 to \$14.50; but there is practically no difference between the values of hides and other raw goods here and in Liverpool, and the quotations of the trade circulars there would represent the values here. Of course the supply here is much more limited, and the hides and skins procured here are not as a rule so well flayed.

#### TANNING MATERIALS.

The sole leather made here is tanned with oak bark and valonia, and, I am informed, none of the inferior materials used in England are here employed in its manufacture. Besides oak bark and valonia, sumac, quick lime, and oil are also used in the various processes of tanning in making some fine qualities of calf—an excellent imitation of the French article. Messrs. Hogarty Brothers are understood to have a secret unknown to other makers in the United Kingdom, by which the leather is finer, softer, and more durable than any other produced in these islands, and has a superior finish imparted to it.

The bark used is mostly native and British, though some of it, particularly Sardinian bark, is imported from the Mediterranean, while the valonia is brought from certain ports in Greece and Asia Minor.

The importation is sometimes direct, but generally these materials come by way of English ports, chiefly Bristol.

The best quality of leather produced here, including the superior calf-skin above referred to, are exported in large quantities to the centers of

the boot-manufacturing industry in England. Some leather, though not much, is exported to the United States. For the rest, and the greater part, it is disposed of by the tanners in the various smaller towns throughout the island.

#### AMERICAN LEATHER.

Much leather of the inferior and cheaper qualities, both upper and bottom, is imported from England and Scotland; and a considerable quantity of American sole leather (hemlock sides) has been used in some parts of the country, mostly in common pegged boots, during the past few years. This is the only class of American leather which appears to have found any favor with the general trade.

Two kinds of American upper leather are also used by some manufacturers for the cheaper class of work; these are waxed fleshes and satin splits. I believe all this leather passes through English factors. I do not learn of any being imported directly from the United States.

But the Irish leather trade for the last quarter of a century has been growing less and less, owing in great measure, as I have remarked above, to the fact that the use of British factory goods has been largely increasing, and that there were no Irish factories to consume the local output. In face of the fact that the entire leather trade has been declining, it is not likely that the trade in American leather here can now be much increased. It is, I am told, owing to the fact that ocean freights are so low, and that there is no duty imposed on its importation, that American leather comes to Great Britain at all, or at any rate that its sale is much increased in consequence of this fact.

"American tanners appear to tan their sole leather," a prominent Cork manufacturer of leather writes me, "quite as cheaply as they possibly can, and the quality is fair; but we think there is room for improvement in their upper leather, which ought to be made as close an imitation of French goods as possible."

Another gentleman, having large experience in the leather trade, says:

American leather does not compare well with that made in Ireland, England, and Scotland. It is less handsome, it does not compare in finish with Irish leather, this being the result of less skillful handling. More care would obviate this objection. If as good a quality of leather could be furnished here at as low or a lower price, there is no reason, at the present rates of freight between the United States and Great Britain, why there should not be a greater demand for American leather in this country.

A manufacturer of boots remarks:

We find American leather to wear pretty well, but the Irish people prefer the old color tannage.

The trade in American leather might best be enlarged, if at all, it is thought, through responsible agencies established in the principal cities and towns, such as Cork, Waterford, Clonmel, Wexford, and Tipperary, to exhibit the leather and supply customers from the adjacent country coming in to buy. Messrs. E. Davidson and Samuel Kingston, Cork, are among the principal importers of leather in the district.

#### BOOTS AND SHOES.

The factory system has lately been making some little headway in Ireland, though there is but one factory worth mentioning for boot and shoe making carried on in the south of Ireland.

This is at Cork, and was started about three years ago with the ob-



ject of benefiting the poorer classes by furnishing a cheaper and at the same time better class of boots and shoes than those imported, and also for the purpose of competing with the imported goods and encouraging home manufacture. It was not sufficiently patronized, however, by those it was intended to benefit. One of the chief difficulties in its way was that its promoters were not able to give as long credit to local dealers as the English houses which furnished ready-made goods, and it has since been continued as a joint stock enterprise, but, as I am informed, with indifferent success.

Machinery is used in this factory exclusively, but except in closing the uppers or sewing the tops of boots in the larger establishments, all custom-work is hand made. The machines are similar to those used in England and Scotland.

They are chiefly of American invention, notably the Blake sole-sewer, and standard screwer.

#### CLASSES AND STYLES.

The classes and styles of boots and shoes made and generally worn are as various as in the United States; these are according to the requirements of the wearer, as with our own people. Farm hands and laborers wear a coarse kip boot or brogue, with iron tips, and the sole well guarded with iron nails.

Seamen use cow-hide sea-boots made with wooden pegs. The English and Irish ladies' boots are made of calf or kid, with high narrow heels, high laced or buttoned. I notice little if any difference in the matter of taste shown in the finishing of these in Ireland and America. Neatness and elegance of fit and finish are not less in demand by the wearers here than in the United States. Gentlemen here wear high-laced or buttoned boots and elastic spring (or, as we call them, Congress) gaiters.

Men's boots, as familiarly known to us some years ago (Wellingtons they are called here), are not worn now in Ireland. As a rule the toes of boots and shoes, according to the present fashion here, are rounded and narrow. But I am assured that America may claim the credit of giving the fashion in boots, as France does in dress.

The sizes range from 6 to 10 for men, 8 being the size most commonly required; and for women from 2 to 6. Prices (wholesale) for ladies' boots range according to material and quality of manufacture from about \$1.25 to \$4; for men's boots the prices range somewhat higher, say from \$1.75 to \$5.50.

#### IMPORTS OF BOOTS AND SHOES.

As a rule, all boots and shoes made here are used by local customers; a few are exported to Great Britain. About \$5,000,000 worth of boots and shoes come to Ireland every year, principally from England and Scotland, though some, particularly the lighter class of ladies' boots (French kids) are imported from France.

Few, if any, boots and shoes have been brought here from the United States, and those which have been seen here are not thought by the Irish to compare well with the boots and shoes made in Great Britain and France. It is claimed that they show inferior workmanship. I cannot well say how they suit the market, since they seem to be really unknown in the market. But those who have observed American boots and shoes worn here by American ladies and gentlemen traveling abroad, say that better material and superior workmanship would be



necessary to make them acceptable in Ireland. It is proper to add that these are the views of Irish shoemakers, though apparently disinterested ones. It is from one of this class that the answer to the following question reaches me.

INTRODUCING AMERICAN SHOES.

The answer given to me is: "Furnish a good article and sell it cheap." But I fancy it would be necessary to be able to sell the same grade of goods here at one-fourth or one-third less than its price at home to compete favorably with the selling prices for boots and shoes in Ireland. Could this be done? "Carriage is considerably lower from America to Cork," a gentleman largely interested in bootmaking writes to me, "than from here to Dublin; so as regards freight they have the advantage at the other side." And there are no duties imposed either on leather or boots and shoes imported to the United Kingdom.

Agencies for the exhibition and sale of American boots and shoes established in the principal cities and towns, would, it is thought, be the best means for their introduction, if the difference in prices—which is especially noticeable in the higher classes of goods—be no insuperable obstacle.

Finally, among the chief importers of boots and shoes in Cork are Messrs. J. F. Lyons & Co., and Messrs. Dwyer & Co.

As for the terms upon which our manufacturers could deal with Irish importers of leather or boots and shoes, I think it would be best for those seeking a foreign trade to correspond directly with the dealers and importers. Long credit is the first condition necessary to consider.

JOHN J. PIATT,  
Consul.

UNITED STATES CONSULATE,  
Cork, July 15, 1885.

Statement showing imports and exports of leather, and imports of hides with materials for tanning at Cork, for the ten years 1875-1884.

Year.	Leather.		Hides.	Materials for tanning.		
	Imports.	Exports.		Bark.	Valonia.	Sumac.
	<i>Bales.</i>	<i>Bales.</i>	<i>Number.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>
1875.....	2,946	565	17,385	1,199	239	144½
1876.....	5,563	774	21,753	1,291	361½	145½
1877.....	5,434	930	20,986	2,930½	231½	147
1878.....	4,267	1,097	23,034	297½	316	105½
1879.....	3,931	994	16,378	1,168	121½	168½
1880.....	3,220	1,320	15,452	221½	188	134
1881.....	3,459	872	17,260	864	75	167½
1882.....	4,157	776	15,491	358½	306½	147½
1883.....	4,280	610	17,537	734½	227½	120½
1884.....	4,801	433	13,316	1,006½	165	112
Total .....	42,058	8,371	178,562	10,070½	2,232	1,482½

## WATERFORD.

## REPORT OF CONSULAR AGENT FARRELL.

## LEATHER.

The leather trade is languishing, several tanneries in this district having been of late shut up.

Hides and skins are obtained in this country, and are largely imported from South America. The average price at tannery is about 7d. per pound.

The materials used in tanning are British or Irish oak bark, with valonia, principally imported from Turkey.

The quantity of leather manufactured is small, and is principally used in this locality.

A large quantity of sole leather is imported from England, but none from the United States of America.

American leather compares favorably with that of other countries, but it does not suit this market, fault being found with the color and mode of putting out of hands.

Importers, or those who sell leather, would prefer doing business direct with manufacturers or with responsible agents in this district.

## BOOTS AND SHOES.

The shoe industry is carried on in this district on a very small scale, and the use of machinery is very limited.

Spring and laced boots are generally worn by men, and buttoned and laced boots by women.

The manufacturers in this district sell all in the locality and there is a large importation from England. No doubt American manufacturers, if their goods could be imported on equal terms, would receive a preference, but there are none of the latter imported.

I may here state that the facilities for importing boots and shoes are very great, and the rates of freight from England are very low, so there is no difficulty whatever in bringing over from England whatever quantity may be required.

WILLIAM H. FARRELL,  
*Consular Agent.*

UNITED STATES CONSULAR AGENCY,  
*Waterford, July, 1885.*

## GREECE.

## REPORT OF CONSUL REILEY.

I have found it very hard to obtain reliable information, mainly because this industry is almost entirely in the hands of petty shopmen, who know little or nothing of its condition and extent outside of their own narrow spheres. This disadvantage is increased by the difficulty in obtaining official statistics.

## LEATHER INDUSTRY IN GREECE.

The condition of the leather industry in this country is very good, considering the depressed state of trade in general. In spite of this,

however, the tanning process is not carried on in Greece to a sufficient extent to meet the wants of the country, and none of the leather tanned in Greece is exported. Large amounts of tanned leather are imported from one or two foreign countries. The leather imported into Greece is used entirely for the finer kind of shoes, while the Greek leather, being of poorer quality, is used for the coarser purposes. The inferiority of the Greek leather is not, I understand, so much in the material itself, but is caused by putting it upon the market so soon after tanning that it has no time to cure properly. Greece, however, exports considerable untanned leather, goat and sheep leather being the principal internal resources. Nevertheless, untanned leather is also imported into Greece in considerable quantities, and being prepared in the Greek tanneries, is in great part what I speak of as Greek leather, although really produced in foreign countries. The Greeks use the usual materials in tanning. When first approaching Piræus, the port of Athens, one cannot fail to notice the number of tanneries visible in all directions. The tanning process also exists to some extent in Athens itself, although I learn that the largest portion of this industry is carried on at the island of Syra, about 80 miles southeast of Athens, and the principal island in commercial importance of all the numerous Cyclades. With the exception of these places, however, there is little or no leather industry in Greece. The price of Greek sole leather is from 70 cents to \$1 per 2½ pounds.

#### FOREIGN LEATHER TRADE.

The leather brought to Greece from foreign countries is the only kind used by the upper classes, the Greek leather being of too inferior a quality. This trade is controlled at present by France and Germany, the French having the larger share.

Although the present German leather trade is insignificant, it promises soon, if in one variety, only to rival the French.

The French leather is the better, and in order to give some idea of its general condition and the expenses incurred in importation, it may be well to give the price in France, in order to compare it with the general prospects of our own "tanned" leather trade. French sole leather, 76 cents per kilogram (exclusively from France little variation in price). French goat-skin leather, \$1.20 to \$2.20 per kilogram; French calf-skin leather, \$1.60 to \$2.20 per kilogram.

This French price is increased considerably in Greece by the very high import duty on leather, which ranges between 20 cents, 50 cents, 80 cents, and \$1.20 per 2½ pounds, according to quality, calf being rated the highest. I have not been able to ascertain the exact prices at which French leather may be obtained in Greece, but I have been informed by a prominent gentleman interested in the leather business that French leather, costing 3.80 francs per kilogram, can be put upon the wholesale Greek market for 4.50 francs, all customs and other expenses paid, and that the same proportion may apply with but little variation through all grades.

The German leather, which is exclusively goat, is cheaper and, I think, a trifle inferior, but the trade in the latter is only in its infancy, last year only \$2,000 worth being imported, although it promises soon, considering the favor which it has received from Greek merchants, to rival French leather of this material.

I have heard conflicting statements from merchants as to the comparative extent of the import leather trade compared with the home in-

dustry, and have been able to obtain no official statistics on the matter. It is evident, however, that the French leather alone controls over one-half of the entire Greek market.

#### UNTANNED LEATHER.

It is in this trade and this only of all the shoe and leather trade in Greece that the United States has any share. A portion of the material prepared in the Greek tanneries is imported in an untanned condition from foreign countries. Germany supplies some, but by far the greater portion comes from the United States. Our trade in this respect is all that could be desired. I do not think that there are any special faults to be found with the enormous amount of this material imported, but, as before stated, the inferiority of the Greek leather is more due to the hastiness of putting upon the market after tanning than from any difficulty with the material itself. This trade, however, must always be subservient to the "tanned" leather trade.

#### BOOT AND SHOE INDUSTRY.

Of this very little can be said. The heavy duties on ready-made shoes prevent any imports into Greece, and this gives a stimulus to the internal industry, so that all the boots and shoes on the market are made in this country, although the finer varieties are invariably of foreign leather. Good shoes are obtainable in Greece at about the same prices as elsewhere.

The duties on ready-made shoes are \$1.60 per 2½ pounds for leather shoes, while silk and other tissues \$6 per 2½ pounds. The shoes worn by the lower classes, and which are the same as are seen in the entire Levant, are made of red leather, very fantastic in shape, curling up and tapering at the ends, on which there is a tuft of colored worsted or silk. They are generally gilded along the sides, always unlined, and altogether capable of standing a large amount of hard use, although they only come up to the ankle.

The average price of a pair of these shoes is about \$1. They are all made in Greece, and are exclusively worn by the peasants.

#### AMERICAN TRADE.

There are three kinds of trade to which we may allude in separate heads. With regard to boots and shoes, neither America nor any other country can afford to import a single pair as long as the enormous duties on these articles continue. The American trade in untanned leather can scarcely be improved, as we already control the greater portion of the import trade in that material. It is therefore to the last and most important article, viz, "tanned" leather, that the most attention must be given. As already stated, France and Germany are the only countries foreign to Greece who occupy this market. Information which I have given with regard to French leather in Greece will enable anybody knowing more about American leather than I do to tell whether we could successfully compete with it in this country. American articles are in great favor in Greece, and I have found several influential people who would be glad to undertake the introduction of the American "tanned" article, and who feel confident that they would succeed in finding for it a good market in Greece.

There is one great drawback, however, to the introduction of American goods, which will apply as well to all articles from the United States: Other nations, owing to the great financial depression, give credit for from three to seven months, while Americans, coming to introduce goods, always wish to deal "cash." Instances of this I have noticed since I came here in several Americans trying to introduce divers goods into Greece, and they have always failed through this condition.

DE WITT T. REILEY,  
*Consul.*

UNITED STATES CONSULATE,  
*Athens, Greece, June 18, 1885.*

ITALY.

Consul-General William L. Alden, Rome.  
Consul James Fletcher, Genoa.  
Consul James M. Wilson, Milan.  
Consul William L. Welsh, Florence.  
Consul Victor A. Sartori, Leghorn.  
Consul Philip Carroll, Palermo.  
Consul Albert Woodcock, Catania.

TARIFF.

[In Italian lire.]

Description of articles.	Measure.	Import duty.		Export duty.
		General.	Most favored nation.	
Hides—raw, green, or dried, other than for furs; hides not tanned, only dried or preserved with ashes or salt; such hides plunged in water are ready for tanning and being finished are fit for shoemaking, &c. ....	Quintal (220.46 lbs.).....	Free.	Free.	2. 20
Hides—dressed—meaning hides not dyed nor greased, having still fleshy sides; said hides cannot pass directly to the trade, being porous, unclean, and not always soft enough .....	do .....	25. 00	25. 00	
Hides—dressed—meaning hides of any animal prepared without oil or other greasy substance, having the right side curled or ribbed .....	do .....	80. 00	75. 00	
Hides—varnished.....	do .....	100. 00	75. 00	
Hides—dressed without hair—finished for soles .....	do .....	45. 00	45. 00	
Hides—dressed without hair and finished for other purpose .....	do .....	50. 00	50. 00	
Kid skins tanned .....	do .....	20. 00	20. 00	
Skins cut for shoes.....	do .....	(*)	(†)	
Boots and shoes:				
Boots and half-boots.....	Hundred pairs.....	110. 00	110. 00	
Shoes of every kind.....	do .....	70. 00	40. 00	

\* Dutiable as the kind of skins to which they belong, plus 10 per cent.  
† Dutiable as the kind of skins to which they belong.

## ROME.

REPORT BY CONSUL-GENERAL ALDEN.

## TANNING INTERESTS.

The number of establishments engaged in the shoe and leather industry in the city of Rome may be briefly stated as follows: 15 tanneries, employing 216 hands, and a motive force of 10 horse-power; 14 dealers in raw hides and skins, employing 78 hands; 79 dealers in tanned and curried leather, including morocco and patent leather; 252 boot and shoe makers (shop-keepers); 4,780 working boot and shoe makers not including cobblers, and 63 saddlers and leather-trunk dealers, employing 405 hands.

The tanneries in the province of Rome are small and comparatively unimportant. The following statement shows their number and number of hands employed, including the city of Rome:

City or town where situated.	Number of tanneries.	Horse-power.	Number of workmen.		Total number of workmen.
			Men.	Boys.	
Rome .....	15	10	202	14	216
Viterbo .....	7	.....	35	6	41
Civita Castellana .....	3	.....	9	.....	9
Aquapendente .....	3	.....	9	.....	9
Tivoli .....	1	.....	5	.....	5
Subiaco .....	3	.....	8	.....	8
Ceprano .....	3	.....	6	.....	6
Frascati .....	1	.....	4	.....	4
Ronciiglione .....	5	.....	13	.....	14
San Giovanni .....	1	.....	4	.....	4
Vetralla .....	1	.....	5	.....	5
Total .....	43	10	300	20	321

As to the entire consular jurisdiction of Rome—which may be roughly estimated to cover nine of the sixty-nine provinces making up the Kingdom of Italy—there are 1,230 tanners and curriers and 328 merchant dealers in leather (wholesale and retail), while for the whole Kingdom, with a population of 28,459,628, there are, according to the most recent authorities, 1,316 tanneries, 14,000 tanners and curriers, and 3,300 merchant dealers.

The principal centers of the tanning industry are in Piedmont, Lombardy, and Tuscany.

The supply of raw hides from the slaughter-houses of Rome is more than sufficient for the ordinary uses of the tanneries of the city and its environs. Some of the lower qualities of hides are sent to other provinces, and in recent years about 150 tons of morocco and patent leather have been brought from various parts of the Kingdom and about 112 tons of fine morocco, patent and upper leather from foreign countries. The product of the Roman tanneries is chiefly sole leather.

Italian tanners are principally engaged in tanning the hides of oxen, cows, and calves. It is said that about two-thirds of the total number of hides tanned annually in Italy are obtained from domestic slaughter-houses and the remaining one-third are imported. In ordinary years these imports are chiefly from the Argentine Republic, Uruguay, and Paraguay, British India, England, France, and Austria.



The chief Italian market for imported hides and leather is Genoa.

In various markets of Italy the average prices of hides for the year 1884, as reported by Government experts and chambers of commerce, were as follows:

By Government experts at Turin.....	per quintal = 220.464 pounds..	\$51 15
By Government experts at Milan.....	do....	48 25
By Government experts at Leghorn.....	do....	50 18
By Government experts at Genoa.....	do....	51 15
By Government experts at Naples.....	do....	52 11
By chambers of commerce of the Kingdom.....	do....	50 37
By returns of collectors of customs.....	do....	51 53

Hides tanned but undressed have recently been priced as follows by chambers of commerce and Government experts:

[Price per quintal = 220.464 pounds.]

By—	Oxen.	Cows.	Heifers	Calves.
The Chamber of Commerce at Mantua.....	\$65 52	.....	\$96 50	\$125 45
The Chamber of Commerce at Ancona.....	54 04	.....	96 50	135 10
The Chamber of Commerce at Turin.....	67 55	.....	106 15	.....
A Government expert at Genoa.....	.....	.....	96 50	.....
A Government expert at Turin.....	57 90	\$65 62	92 64	115 80
A Government expert at Milan.....	.....	67 55	96 50	115 80

Morocco leather of all colors and patent-leather sheep-skins from \$96.50 to \$152.40 per quintal (= pounds 220.464), goat skins shagreened and oiled, \$152.40 per quintal; goat-skins dried from \$193 to \$289.50 per quintal; patent leather from \$152.40 to \$289.50 per quintal. Prices of sole leather per quintal (= pounds 220.464) at Rome as quoted by the Chamber of Commerce was \$65.62. As to the prices of hides on other Italian markets, the price per quintal stated by the Chambers of Commerce of Venice, Parma, and Padua was \$61.76; that quoted by the Chambers of Commerce of Naples, Genoa, Reggio, and Verona was \$65.62. Government appraisers furnish the following prices at Milan, Leghorn, and Genoa, namely, Milan, \$57.90; Leghorn, 65.62, and Genoa \$72.37 (tanned with valonia). The price of upper leather at Rome as quoted by the Chamber of Commerce and experts was per quintal (= 220.464 pounds) for calf-skins from \$135.10 to \$172.70. Offals and scraps for glue works average \$5.79 per quintal. Sole leather domestic, \$67.55 to \$78.20 per quintal.

#### TANNING MATERIALS

The materials generally used for tanning in this consular district are valonia, the bark of the green oak, and the bark of the cork oak. Valonia, although somewhat produced in Italy, is chiefly imported from Smyrna through dealers at Trieste and Ancona. The green-oak bark is obtained from home forests and the cork bark from the island of Sardinia, where the cork oak is a common forest tree. Valonia is used for the tanning of heavy sole leather, green-oak bark for light sole leather, and cork-oak bark for light cow-hides and calf-skins for boot legs and uppers. The tanning process in use in this city and its vicinity is the so-called ordinary or slow process. By this process about one year is required for the tanning of a hide.

It may here be said that Italy is provided with a considerable num-

ber of tanning products. The following comprise the chief tannic materials produced in the Kingdom:

*Abies pectinata* D. C.; *Pinus picea* (L. silver fir): Grown in the mountains of the Abruzzi and Calabrian provinces. The bark contains from 18 to 25 per cent. of tannin.

*Acacia Nilotica*: Introduced from Egypt into Sicily, where it grows well, but in small quantities; contains 30 per cent. of tannin.

*Arbutus unedo*: Flourishes well in various parts of the Kingdom, and especially in the Calabrian provinces; yields from 25 to 35 per cent. of tannin.

*Betula alba* L.: Grows in the north of Italy; only gives from 5 to 9 per cent. of tannin, but is very valuable as having the same properties as the Russian larch, much esteemed for the preparation of Russian leather.

*Banksia* (Ericaceæ): Found at the solfatara of Pozzuoli, near Naples, where it is used, and is said to yield 8 per cent. of tannin.

*Chestnut* (Cupuliferæ): Found throughout Italy, and furnishes one of the best of tanning materials. The best tannin is obtained from old trees, which by reason of their age are unfit for saw timber. The wood and fruit cover cost, \$31.51 per ton, and yield the best gallic acid known in trade. About 130 tons of chestnut extract are exported at a cost of \$482.50 per ton. The saw-dust of this chestnut mixed with oak bark is also much used for tanning purposes in Italy.

*Cornus mas* (Cornaceæ): Very common; it produces 8 per cent. of tannin.

*Diospyros glutinosa* (Ebenaceæ): Common in the province of Naples; the green fruit contains over 60 per cent. of tannin.

*Diospyros lotus* (Ebenaceæ): In Central and Southern Italy known as *legno santo*. Fruit said to produce from 30 to 38 per cent. of tannin, and the bark 24 per cent. of tannin.

*Fraxinus excelsior* (ash): A common Italian forest tree; yields 9 per cent. of tannin.

*Acorn gall* (the Knoppert of Hungary): Common in Piedmont; contains 14 per cent. of tannin; used especially for sole leather. This gall is also found on the *Quercus ilex*, in Tuscany, and in the island of Sardinia, but is not much valued for tanning purposes, as it gives too dark a color to leather.

*Geum urbanum* (Rosaceæ) (herb rennet): Commonly called *erba Benedeta*; produces 40 per cent. of tannin.

*Juniper communis* L.: Indigenous throughout Italy; gives from 13 to 15 per cent. of tannin.

*Punica granatum* (pomegranate): Found everywhere in Southern Italy and especially in Sicily; it contains 46 per cent. of tannin; is much prized for the tanning of the finest leather, and is much exported.

*Myrtus communis* (myrtle): Common throughout Italy, where it is used especially for sole leather in connection with valonia; it contains from 13 to 15 per cent. of tannin.

*Juglans regia* (walnut): The wood contains 4 per cent. of tannin, but the nut-husks, which are always used in Italy for tanning, contain 11 per cent.

*Alnus cordifolia* (alder): Called *ontano*; is very common on swampy lands in Italy. The bark is preferred to that of the oak, although it contains only 8 per cent. of tannin.

*Plumbago Europæa* (plumbagine): Very common on argillaceous soils throughout Italy; it contains from 8 to 15 per cent. of tannin.

*Pistacchio lentiscus*: Leaves and seeds contain from 12 to 15 per cent. of tannin; used especially for tanning the hides of sheep and goats.

Various kinds of the oak are abundant in Italy, among which are the—

*Cork oak*: Most common and best in the forests of the island of Sardinia; contains from 10 to 20 per cent. of tannin.

*Quercus suber*: Contains 12 per cent. of tannin; used especially for the tanning of sole leather; when too red the bark is mixed with other bark to lighten the color.

*Quercus pedunculata* (called *rovere*): The most useful of barks for tanning purposes.

*Rhus coriaria* (sumac): Largely grown in Sicily, where it forms a considerable article of export to foreign countries. The Sicilian product is said by the Italians to be the best sumac known; it contains from 16 to 20, and even 25 per cent. of tannin.

*Tamarisk Africana*: Common in the Calabrian provinces; it is much exported to foreign countries; contains from 30 to 35 per cent. of tannin.

*Valonia*: Indigenous in the southeastern provinces, especially near Otranto; contains 35 per cent. of tannin.

*Ziziphus jujuba*: Contains 5 per cent. of tannin, and the unripe fruit 16 per cent.

#### PRODUCTION AND IMPORTS OF LEATHER.

There are no official statistics of the quantity of leather manufactured in this district or in Italy; but it has been estimated that Italian tan-

neries annually prepare about 50,000 tons of green hides. The production of tanned leather has been estimated at about 20,000 tons per year, representing a value of \$10,300,000.

The patent leather used is largely imported, comparatively little patent leather being produced by home manufacturers. The chief center of domestic patent-leather manufacture is Turin.

Statement No. 1 shows the foreign commerce of Italy (imports and exports, not including those in transit) in hides, furs, leather, and leather manufactures for the three years ending December 31, 1885.

STATEMENT No. 1.—*Foreign commerce of Italy (imports and exports) in hides, furs, leather, and leather manufactures during the three years ending December 31, 1884.*

Articles.	Imports.			Exports.		
	1884.	1883.	1882.	1884.	1883.	1882.
Hides, green and dry, not suitable for furriery.....pounds..	34,496,033	29,948,388	30,160,136	10,515,942	9,360,061	5,967,938
Hides, green and dry, suitable for furriery.....pounds..	22,707	111,553	112,657	3,968	17,636	7,494
Hides, tanned but not unhaired, fine.....pounds..	11,022	13,224	11,684	661	1,984	661
Hides, tanned but not unhaired, common.....pounds..	188,272	152,777	127,428	4,629	6,612	2,086
Hides, dressed and curried....do....	737,657	66,213,617	632,290	35,711	28,218	21,603
Morocco leather.....do....	41,226	39,902	37,258	3,968	1,763	.....
Patent leather.....do....	897,269	350,530	316,801	3,968	1,323	441
Leather, dressed, not elsewhere included.....pounds..	2,732,342	2,870,836	2,655,881	2,268,532	2,430,792	2,430,571
Goat and lamb skins, tanned and dressed.....pounds..	115,080	100,528	68,563	41,440	40,122	22,046
Leather, cut in boot-legs, uppers, hat-bands, &c.....pounds..	1,102	32,630	63,272	.....	822	661
Offals.....do....	571,651	465,831	766,098	648,152	693,787	671,964
Muffs, of fine furs.....number..	210	239	317	3	10	44
Muffs, of common furs.....do....	408	406	747	109	6	8
Miscellaneous furs goods, fine.pounds..	9,700	6,172	4,629	1,763	220	882
Miscellaneous fur goods, common.....pounds..	14,304	11,463	9,038	3,086	882	882
Harness, plain.....do....	10,584	6,612	7,152	5,732	4,629	7,152
Harness, ornamental.....do....	4,188	3,526	3,968	1,543	2,646	1,323
Saddles.....number..	456	484	494	9	3	35
Miscellaneous saddlery.....pounds..	5,952	9,038	21,824	6,832	1,323	15,428
Leather gloves of all qualities, and leather cut for gloves.....pairs..	51,200	48,700	41,400	2,430,700	2,721,100	3,166,000
Boot and gaiter shoes.....do....	11,600	11,700	11,700	4,400	3,000	3,500
Low shoes, slippers, and other articles for foot covering.....pairs..	15,600	16,600	21,600	15,900	22,800	18,700
Portmanteaus, valises, and leather trunks.....number..	469	597	343	28	94	365
Miscellaneous tanned leather goods.....pounds..	139,990	147,043	128,968	2,425	11,022	12,124

Statement No. 2 shows the imports into Italy (not including those in transit) of hides, furs, leather, and leather manufactures, and the various countries from which they were obtained for the year ending December 31, 1884.

Statement No. 3 shows the exports of hides, furs, leather, and manufactures of leather from Italy (not including those in transit) for the year ending December 31, 1884, classified according to the countries to which they were sent.

STATEMENT No. 2.—Imports into Italy of hides, furs, leather, and leather manufactures, classified according to the countries from which they were imported.

Articles.	EUROPE.					
	Austria.		Belgium.		France.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Hides, wet and dry (large bovine, not suitable for furriery).....pounds.	3, 011, 921	\$698, 660	20, 942	\$4, 825	2, 221, 134	\$975. 615
Hides, wet and dry (all other large, not suitable for furriery).....pounds.	73, 632	9, 680				
Hides, wet and dry (small ovine and caprine, not suitable for furriery)....pounds.	98, 768	23, 739			235, 668	56, 742
Hides, wet and dry (all other small, not suitable for furriery).....pounds.	30, 864	5, 404			52, 910	9, 264
Hides, wet and dry (all other small, suitable for furriery).....pounds.	4, 409	1, 930			10, 141	4, 439
Hides tanned but not unhaired, fine....do.	2, 646	6, 176			3, 526	8, 299
Hides tanned but not unhaired, common do.	32, 630	21, 423			101, 849	61, 788
Hides dressed and curried.....do.	24, 250	10, 615			512, 790	224, 459
Morocco leather.....do.	5, 732	5, 597			20, 722	20, 072
Patent leather.....do.	55, 112	72, 375	5, 942	7, 720	131, 833	158, 646
Sole leather.....do.	15, 872	4, 825			25, 572	7, 537
Other leather for boot legs and uppers..do.	341, 712	261, 708	9, 259	7, 141	1, 469, 362	1, 125, 576
Goat and lamb skins tanned and dressed do.	56, 877	139, 539			48, 870	107, 501
Leather cut in boot legs, uppers, hat bands &c.....pounds.					1, 102	772
Offals.....do.	332, 453	8, 685			69, 664	1, 930
Muffs of fine furs.....number					189	3, 281
Muffs of common furs.....do.	45	193			292	772
Miscellaneous fur goods, fine.....pounds.	1, 543	7, 334			4, 850	23, 353
Miscellaneous fur goods, common.....do.	1, 984	2, 509			8, 376	11, 001
Harness, plain.....do.	4, 409	3, 088			4, 409	3, 088
Harness, ornamented.....do.	1, 984	2, 895			2, 204	3, 281
Saddles.....number	14	193			290	4, 439
Miscellaneous saddlery.....pounds.					5, 952	4, 246
Leather gloves of all qualities, and leather cut for gloves.....number of pairs.	5, 600	2, 702			37, 400	18, 142
Boots and shoes.....do.	5, 000	11, 580			3, 800	8, 685
Low shoes, slippers, and other foot covering.....number of pairs.	5, 100	7, 913			6, 000	9, 264
Portmanteaus, valises, and trunks...number	95	579			225	1, 544
Belting for machinery.....pounds.	4, 850	3, 088	2, 865	1, 990	29, 760	19, 493
Miscellaneous tanned leather goods....do.	2, 204	1, 351	1, 543	965	15, 208	9, 264

Articles.	EUROPE.					
	Germany.		Great Britain.		Greece and Malta.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Hides, wet and dry (large bovine, not suitable for furriery).....pounds.	677, 252	\$157, 102	7, 737, 410	\$1, 793, 935	85, 538	\$19, 879
Hides, wet and dry (all other large, not suitable for furriery).....pounds.			15, 872	2, 123		
Hides, wet and dry (small ovine and caprine, not suitable for furriery)....pounds.	8, 596	2, 123	535, 497	128, 924		
Hides, wet and dry (all other small, not suitable for furriery).....pounds.	22, 928	4, 053	64, 373	11, 194		
Hides, wet and dry (all other small, suitable for furriery).....pounds.	4, 188	1, 930				
Hides tanned but not unhaired, fine....do.	4, 850	11, 580				
Hides tanned but not unhaired, common do.	50, 485	33, 196				
Hides dressed and curried.....do.	52, 688	23, 160	105, 596	46, 127		
Morocco leather.....do.	10, 584	10, 229				
Patent leather.....do.	170, 632	224, 073	15, 853	20, 458		
Sole leather.....do.	8, 376	2, 509				
Other leather for boot legs and uppers..do.	618, 611	473, 815	60, 626	46, 513		
Goat and lamb skins tanned and dressed do.	14, 326	35, 126				
Muffs of fine furs.....number.	21	380				
Muffs of common furs.....do.	71	193				
Miscellaneous fur goods, fine.....pounds.	3, 306	16, 019				
Miscellaneous fur goods, common.....do.	3, 747	5, 018				
Saddles.....number	55	772	80	1, 158		
Leather gloves of all qualities and leather cut for gloves.....number of pairs.	1, 800	772	1, 500	772		
Boots and shoes.....do.			2, 800	6, 562		
Low shoes, slippers, and other foot covering.....number of pairs.	2, 700	4, 246	1, 800	2, 702		
Portmanteaus, valises, and trunks...number	41	386	100	579		
Belting for machinery.....pounds.	20, 289	13, 317	46, 957	30, 880		
Miscellaneous tanned leather goods....do.	2, 646	1, 544	3, 968	2, 509		

## STATEMENT NO. 2.—Imports into Italy of hides, furs, leather, &amp;c.—Continued.

Articles.	EUROPE.							
	Holland.		Spain, Gibraltar, and Portugal.		Switzerland.		Turkey in Europe.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Hides, wet and dry (large bovine, not suitable for furriery) ..... pounds..	17, 856	\$4, 246	26, 455	\$6, 176	240, 741	\$55, 777	182, 320	\$42, 267
Hides, wet and dry (all other large, not suitable for furriery) ..... pounds..					87, 741	11, 580		
Hides, wet and dry (small ovine and caprine, not suitable for furriery) pounds					114, 418	27, 599		
Hides, wet and dry (all other small, not suitable for furriery) ..... pounds..					154, 542	27, 020		
Hides, wet and dry (all other small, suitable for furriery) ..... pounds..							3, 968	1, 787
Hides, tanned but not unhaired, common .pounds								
Hides, dressed and curried..... pounds..					3, 306	2, 123	20, 942	9, 264
Morocco leather .....do.....					4, 188	3, 860		
Patent leather.....do.....					21, 824	28, 757		
Sole leather.....do.....					6, 612	1, 930		
Other leather for boot legs and uppers .....pounds..					167, 328	128, 152		
Offals .....do.....					80, 642	772		
Saddles .....number..					17	386		
Leather gloves of all qualities, and leather cut for gloves..number of pairs..					4, 900	2, 316		
Belting for machinery, pounds					7, 278	4, 825		
Miscellaneous tanned leather goods .....pounds..					2, 425	1, 544		

Articles.	ASIA.					
	Turkey in Asia.		British India.		China and Japan.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Hides, wet and dry (large bovine, not suitable for furriery) ..... pounds..	34, 390	\$7, 913	4, 875, 031	\$1, 130, 980	348, 326	\$80, 867
Hides, dressed and curried .....do.....			21, 383	9, 264		

Articles.	AFRICA.			
	Egypt.		Tunis and Tripoli.	
	Quantity.	Value.	Quantity.	Value.
Hides, wet and dry (large bovine, not suitable for furriery) pounds.	315, 917	\$73, 340	91, 490	\$21, 230
Hides, wet and dry (small ovine and caprine, not suitable for furriery) ..... pounds..	5, 511	1, 351	27, 778	6, 755
Offals .....do.....	34, 170	965		
Harness, plain .....do.....	1, 763	1, 158		

STATEMENT No. 2.—Imports into Italy of hides, furs, leather, &c.—Continued.

Articles.	AMERICA.			
	United States and Canada.		States of the Plata.	
	Quantity.	Value.	Quantity.	Value.
Hides, wet and dry (large bovine, not suitable for furriery), pounds.....	1, 746, 484	\$405, 107	6, 521, 354	\$1, 512, 927
Hides, wet and dry (all other large not suitable for furriery)..... pounds.....			30, 864	4, 033
Hides, wet and dry (small ovine and caprine, not suitable for furriery)..... pounds.....	506, 836	121, 976	1, 947, 632	493, 023
Hides, wet and dry (all other small suitable for furriery) do....	21, 383	3, 860	226, 192	39, 565
Patent leather..... do.....	7, 273	9, 650		
Offals..... do.....			105, 155	2, 702

STATEMENT No. 3.—Exports from Italy in 1884 of hides, furs, leather, and leather goods, classified according to the countries to which they were sent.

Articles.	EUROPE.					
	Austria.		France.		Germany.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Hides, wet and dry (large bovine, not suitable for furriery)..... pounds.....	2, 774, 930	\$643, 848	590, 787	\$187, 030	393, 520	\$91, 289
Hides, wet and dry (all other large, not suitable for furriery)..... pounds.....	264, 993	84, 983	6, 612	772		
Hides, wet and dry, (small ovine and caprine, not suitable for furriery)..... pounds.....	455, 687	139, 539	2, 448, 208	750, 191	277, 558	84, 929
Hides, wet and dry, (all other small, not suitable for furriery)..... pounds.....	526, 238	92, 061	36, 372	6, 469		
Hides, wet and dry, (suitable for furriery) do.....			1, 984	772	661	399
Hides, tanned but not unhaired, fine do.....			661	1, 544		
Hides, tanned but not unhaired, common do.....	441	886	4, 188	2, 702		
Hides, tanned but unhaired..... do.....	11, 463	5, 018	22, 046	9, 650		
Morocco leather..... do.....			2, 204	2, 123		
Patent leather..... do.....	1, 323	1, 737	661	965		
Sole leather..... do.....	391, 973	116, 765	395, 283	117, 730	32, 407	9, 650
Dressed leather..... do.....	87, 002	74, 305	57, 536	44, 004	5, 292	4, 633
Goat and lamb skins, tanned and dressed do.....			37, 254	91, 289		
Offals..... do.....	257, 934	6, 755	102, 951	2, 702	114, 418	3, 066
Muffs of common furs..... number.....	50	193				
Miscellaneous fur goods, fine..... pounds.....			1, 763	8, 492		
Miscellaneous fur goods, common..... do.....			1, 543	2, 123		
Harness, plain..... do.....	441	886	882	579		
Harness, ornamented..... do.....			661	965		
Miscellaneous saddlery..... do.....	1, 323	965				
Leather gloves and leather cut for gloves number of pairs.....	25, 200	6, 755	1, 814, 900	490, 413	62, 400	16, 791
Boots and shoes..... number of pairs.....	500	1, 158	1, 300	3, 088		
Low shoes, slippers, and other foot covering, number of pairs.....	9, 600	14, 861	300	386		
Portmanteaus, valises, and leather trunks, number.....			28	193		



## STATEMENT No. 3.—Exports from Italy in 1884 of hides, &amp;c.—Continued.

Articles.	EUROPE.					
	Great Britain.		Greece and Malta.		Russia.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Hides, wet and dry (large bovine, not suitable for furriery).....pounds..	1, 996, 925	\$463, 200	29, 198	\$6, 755		
Hides, wet and dry (all other large, not suitable for furriery).....pounds..	5, 511	772				
Hides, wet and dry (small ovine and caprine, not suitable for furriery).....pounds..	127, 642	39, 179				
Hides, wet and dry (suitable for furriery)do.....			1, 823	579		
Sole leather.....do.....	2, 265	772	36, 593	10, 808	5, 511	\$1, 737
Dressed leather.....do.....			7, 273	5, 597		
Leather gloves and leather cut for gloves, number of pairs.....	7, 800	1, 930	2, 900	772		
Low shoes, slippers, and other foot covering, number of pairs.....	209	386				
Miscellaneous articles in tanned leather, pounds.....	1, 543	965				

Articles.	EUROPE.					
	Spain, Gibraltar, and Portugal.		Sweden and Norway.		Switzerland.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Hides, wet and dry (large bovine, not suitable for furriery).....pounds..	7, 152	\$1, 737			192, 457	\$44, 853
Hides, wet and dry (all other large, not suitable for furriery).....pounds..					11, 922	1, 851
Hides, wet and dry (small ovine and caprine, not suitable for furriery).....pounds..			11, 463	\$3, 474	324, 292	99, 395
Hides, wet and dry (all other small, not suitable for furriery).....pounds..					5, 292	965
Hides, tanned but unhaired.....pounds..					2, 204	965
Patent leather.....do.....					441	579
Sole leather.....do.....					47, 033	11, 001
Dressed leather.....do.....					45, 635	34, 933
Goat, and lamb skins, tanned and dressed.do.....					4, 188	10, 229
Offals.....do.....					172, 840	4, 439
Muffs of common furs.....number.....					59	193
Harness, plain.....pounds.....					1, 102	772
Harness, ornamented.....do.....					882	379
Miscellaneous saddlery.....do.....					5, 511	3, 860
Leather gloves and leather cut for gloves, number of pairs.....					170, 700	44, 197
Boots and shoes.....number of pairs.....					700	1, 544
Low shoes, slippers, and other foot covering, number of pairs.....					900	1, 851
Miscellaneous articles in tanned leather, pounds.....					882	579

Articles.	EUROPE.		ASIA.			
	Turkey in Europe.		Turkey in Asia.		British India.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Hides, wet and dry (large bovine, not suitable for furriery).....pounds..	30, 201	\$6, 948				
Morocco leather.....do.....	1, 763	1, 737				
Patent leather.....do.....	441	579				
Sole leather.....do.....	789, 466	235, 074	156, 526	\$46, 513		
Dressed leather.....do.....	23, 369	17, 949	34, 391	26, 248	3, 306	\$2, 509
Harness, ornamented.....do.....	441	772				
Leather gloves and leather cut for gloves.....number of pairs.....	1, 600	386	2, 200	579		
Low shoes, slippers, and other foot covering.....number of pairs.....					300	586

STATEMENT No. 3—Exports from Italy in 1884 of hides, &amp;c.—Continued.

Articles.	AFRICA.					
	Egypt.		Tunis and Tripoli.		Algiers.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Patent leather.....pounds..	1, 102	\$1, 351	.....	.....	.....	.....
Sole leather.....do.....	.....	.....	113, 536	\$33, 775	9, 479	\$2, 895
Dressed leather.....do.....	2, 646	2, 123	7, 152	5, 404	.....	.....
Boots and shoes.....number of pairs..	1, 200	2, 895	700	1, 544	.....	.....
Low shoes, slippers, and other foot covering.....number of pairs..	2, 000	3, 088	.....	.....	.....	.....

Articles.	AMERICA.					
	United States and Canada.		States of the Plata.		Peru and Chili.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Sole leather.....pounds..	4, 188	\$1, 158	.....	.....	.....	.....
Dressed leather.....do.....	.....	.....	10, 141	\$7, 720	.....	.....
Miscellaneous fur goods, common.do ..	1, 543	1, 930	.....	.....	.....	.....
Harness, plain.....do.....	.....	.....	.....	.....	3, 306	\$2, 318
Saddles.....do.....	.....	.....	1, 984	193	.....	.....
Leather gloves and leather cut for gloves.....number of pairs..	841, 100	92, 254	2, 400	772	.....	.....
Low shoes, slippers, and other foot covering.....number of pairs..	1, 100	1, 737	.....	.....	.....	.....

According to the foregoing statement No. 2, compiled from the returns of the Italian custom-house, the following were the imports into Italy from the United States and Canada during the year ending December 31, 1884:

Articles.	Quantity.	Value.
Raw hides, wet and dry:		
Large bovine.....pounds..	1, 746, 484	\$405, 107
Small, ovine.....do.....	506, 436	121, 976
Other small.....do.....	21, 383	3, 440
Patent leather.....do.....	7, 273	9, 650

It must be noted that the custom-house returns do not separate the trade with the United States from that of Canada. Therefore the imports into Italy from Canada are necessarily included in these figures. However, dealers have stated that the trade refers chiefly to the United States, and that the shipments are made mostly from the port of New York.

#### AMERICAN LEATHER.

American patent leather is the only leather imported directly from the United States into this district. It is said to be superior to other foreign patent leather, and is much prized for its pliability and fine polish. Some consignments of American patent leather are also said to reach this district indirectly through England and Germany. The great bulk of the patent leather now imported into Italy comes from Germany and France. No comparison can be made with American leather other than patent leather, there being no importations into this country.

## BOOTS AND SHOES.

The factory system is unknown in this district. Shop-keepers employ workmen in their shops and also send work out to be done at the workman's home.

With the exception of common hand-tools in use from time immemorial, and sewing-machines, mostly German imitations of American machines, of which there is a large importation into this district and other parts of the Kingdom, labor-saving machines and improved tools are not used, even the common jack used in every shop and factory in the United States, as well as in England and France, and parts of Germany and Belgium, is practically unknown here.

In this district, where all boots and shoes are made by hand and generally to order, shoemakers seek to satisfy the particular fancy or necessity of customers; hence an endless variety of styles or rather modifications of the general fashion. The general fashion is usually about the same as that of France, which does not now differ much from that prevailing in the United States.

In large cities and towns ready-made shoes are extensively sold.

The following comparative statement, showing the style, quality, and cost of boots and shoes sold in the city of Rome, per thousand pairs sold, has been prepared from information obtained by several of the largest dealers in this city:

*Style, quantity, and cost of boots and shoes sold in the city of Rome.*

Out of every 1,000 pairs there were:

Description.	Quantity.	Price per pair.	
	<i>Pairs.</i>		
<b>Men's boots and shoes:</b>			
Top-boots used by hunters and watermen .....	40	\$5 00 to	\$8 00
Cavalry, Wellington, and Blucher boots .....	150	5 00	7 00
Boots with morocco tops .....	360	3 50	6 00
Half-boots, common, for countrymen, nailed .....	450	2 30	3 50
	1,000		
Elastic gaiter shoes, all leather .....	220	2 10	3 50
Elastic gaiter shoes, cloth uppers .....	70	2 40	4 20
Laced shoes, with eyelets .....	80	1 90	2 75
Shoes with buttons or clasps .....	80	2 25	3 50
Button shoes .....	30	2 50	3 50
Babouches, common .....	360	1 40	1 90
Babouches, fine .....	25	2 10	3 00
Low shoes, laced in front, with four eyelets or buckles .....	150	1 80	2 80
Canvas shoes .....	35	1 40	2 20
	1,000		
<b>Ladies' boots and shoes:</b>			
Elastic high poles (all leather or cloth uppers) .....	40	1 80	2 40
Elastic half poles (all leather or cloth uppers) .....	140	1 50	2 00
Elastic serge shoes (patent-leather toe-caps same price) .....	120	1 80	1 90
Laced serge shoes (with or without patent leather) .....	100	1 30	1 70
Laced leather shoes (with eyelets or clasp-button) .....	70	1 80	2 40
Button shoes, high poles .....	70	2 00	3 20
Button shoes, half poles .....	80	1 90	2 80
Button shoes (bronze or fancy cloth) .....	70	2 50	3 80
Low shoes (elastic, buttoned or laced, color black, buff, or fawn) .....	280	1 60	2 75
Canvas shoes, with toe-caps, laced, four eyelets .....	30	1 20	1 80
	1,000		

Men's boots and shoes are generally made with low broad heels and rounded or oval shaped toes. Toe-caps are little used, it being believed that they cause chilblains on the toes from dampness between the toe-cap and the upper.

Patent-leather shoes cost the same as tanned-leather shoes when made of domestic patent leather.

Fancy shoes and fancy styles are not included in the foregoing statement. The prices of such shoes reach as high as \$10 per pair, and differ little in general shape and quality from American shoes costing about \$3 per pair.

Any shape or style of fancy shoes and boots, especially in fine calf-skin, ought to find ready sale among the upper classes, and, if not too expensive, they should be bought by the thousands by Government employes and army officers.

Strong, but cheap, shoes, like United States Army shoes, in cases of sixty pairs, divided in the following sizes: Five 7s, ten 8s, twenty 9s, fifteen 10s, ten 11s, and 12s (broad or square toed) would sell well among the lower classes. The same may be said of strong low boots, divided in the same sizes, but placing five 13s instead of five 7s. All such shoes ought to be Ds and Es. Light split hides should not be used for uppers, as they would not find favor, it being the popular belief here that strength must be united with thickness.

Ladies' shoes are now made with broader heels, much resembling what are known here as English heels. Wooden heels are less curved, and are placed further back than with us.

Boots and shoes for young girls are the same as those for ladies in style and finish, differing only in size. The importation of children's shoes would not be profitable, as they would pay the same duty as larger shoes.

As in men's shoes, the above observations relate only to shoes in general use. In ladies' shoes fancy machine stitching and perforated work are much liked, especially in leather and low shoes.

Fine shoes ought to be packed twelve pairs per case. A common class of goods could be very well sent in the usual case of sixty pairs.

A case of sixty pairs of ladies' shoes should be divided as follows: Three 7s, seven 6s, fifteen 5s, twenty 4s, and fifteen 3s.

For girls', boys', and children's shoes the same sizes may be selected as in the United States.

For men, five 5s, ten 6s, fifteen 7s, fifteen 8s, ten 9s, and five 10s would be the best division.

The output of the boot and shoe manufactures of this district is consumed at home. This is the case all over Italy, with the exception of the cities of Naples, Brescia, Bra, and Turin, where the product is larger than the consumption. This excess is sent to other districts, especially to Rome, Milan, Florence, &c.

#### IMPORTATIONS.

During the year ending December 31, 1884, the importation of boots and shoes into Italy amounted to 26,600 pairs, valued at \$50,952. During the same year 22,300 pairs were exported, valued at \$33,424.

The imports were from four countries only, namely: Austria, 10,100 pairs, valued at \$19,493; France, 9,800 pairs, valued at \$17,949; Germany, 2,700 pairs, valued at \$4,246; and England, 4,600 pairs, valued at \$9,264.

The exports were sent to the following countries: Austria, 10,100 pairs, value \$15,109; France, 16,000 pairs, \$3,474; Great Britain, 200 pairs, \$386; Switzerland, 16,000 pairs, \$2,895; British India, 300 pairs, \$386; Egypt, 3,200 pairs, \$5,983; Tunis and Tripoli, 700 pairs, \$1,544; and the United States and Canada, 1,100 pairs, \$1,737.

The firm of O. Ristori & Co., importers and exporters of hides and leather, also dealers in boots and shoes, of No. 54 Via della Mercede, Rome, has stated that it would be willing to consider any proposals for entering into business relations with American merchants in these articles. It may also be said that an association proposes to open at Rome, with branches in various other cities, a permanent exhibition of American manufactures and products at an early date. It is obvious that such an exhibition, if well conducted, might be made of great benefit in the introduction of American products and manufactures into Italy.

At a recent meeting at the shoemakers' association of the city of Rome it was stated that about 1,000,000 pairs of boots and shoes are used every year in this city. Of this number it was said that about

150,000 pairs are brought from Naples, Brescia, and Bra, and some imports from Austria, France, and England, and that the remainder are made in Rome.

The hand work of the Roman shoemakers compares well with that of imported work, and their manufactures are prized for strength and good workmanship.

The foregoing statement as to the consumption of the city of Rome is doubtless nearly correct. In schools, public institutions, and the army it is calculated that each person requires four pairs per year; this would be more than old people and women would use, but the average would be three pairs per head in a population of 330,300—namely, 1,000,000 pairs.

#### AMERICAN BOOTS AND SHOES.

Inquiries as to American boots and shoes have been made of some of the largest dealers and firms in this city, but nothing is known about them. The Italian custom-house returns show that no direct imports are made from the United States. On the other hand, commercial travelers have affirmed that American shoes are imported into Italy in small lots as of English, French, and Austrian manufacture. It is a fact that some cases of shoes bearing the mark of the McKay Sewing Machine Company enter Italy as of English and Austrian manufacture; also shoes from Burt, of New York, as of Paris make. There being no official importations from the United States, it is difficult to answer the questions relating to these points. But from trustworthy information I can say that commercial travelers have brought American shoes into Rome, as well as to other Italian cities. They were not, however, sold as such. The dealers who handled them say that they were good and well made, and that they would sell well were they not much too expensive.

I have also been informed that on two occasions American boots and shoes were offered to the Italian war department for army use. The first was in 1877-'78, through an American agent then in Italy. He was introduced by a consular officer of the United States. The shoes offered were made at Albany, N. Y. Forty pairs were presented for trial. The war department declined to purchase on the ground that, being machine-made, they could not be repaired here. The following year another offer of American boots and saddlery was made to the war department. I have been told that 200 pairs of short boots were then furnished, and were by the war department given to be worn by 160 carabinieri. These boots lasted from six to nine months and were then resoled, besides being twice heeled. They are said to have given entire satisfaction; but before any order in reference to purchases was given the original price for shoes per pair, namely, 4.20 lire per pair (80 cents), was raised by the agent to 5.05 lire (97½ cents), and the price of short boots from 8.70 lire (\$1.68) to 9.60 lire (\$1.84½), without giving any proper reason for the change. It appears the war department ordered inquiries to be made for the names of the manufacturers, that dealings with them might be conducted directly; but owing to a change in the ministry, which occurred about that time, nothing further was done. A Florentine firm is said to have had charge of this last matter.

By honest dealing a considerable business could have been opened in shoes for army use, and trade for a better class of men's and ladies' boots and shoes would have naturally followed.

A Roman dealer informs me that he is now filling an order of the Italian war department at the following prices: Shoes, from 5 lire (96½ cents)

to 5.20 lire (\$1); short boots, 8.50 lire (\$1.64) to 9 lire (\$1.74); top boots, 11 lire (\$2.12).

In Rome, as generally in the larger cities, new uppers are seldom put on old shoes, except on the finest, high-priced goods, and pieces on uppers are rarely seen. It is found cheaper to purchase new work for out-of-door wear, and retain the old for the house, shop, or office.

Soling and heeling are always resorted to, and soles are invariably sewed on. It is therefore necessary that boots and shoes of the best quality destined for the market should bear soling by hand sewing. The average class of heavy boots and shoes for men could be soled by tacking and still give satisfaction, but not so with ladies' and girls' shoes, which must always be soled by sewing.

Doubtless one of the best means of opening the Italian market to American boots and shoes would be to introduce the machines, tools, and appliances used in their manufacture in the United States.

The factory system has no hold in Italy, and the increase in home manufacture in Italy produced by machine work would be exported to Africa, Turkey, India, &c. Italy now sends some shoes and babouches to those markets. The main difficulty in the introduction of American products and manufactures into Italy is to overcome the opposition of commercial agents and of the foreign branch houses established here, which in their own interests put down competition both by fair and unfair means, and are said to show and sell American goods at high prices as their own work until their houses can manufacture imitations, which are sold at lower prices.

Italian merchants, ignorant of our language, customs, and productive facilities, rarely seek to trade direct with American dealers, and are likely to believe all that may be said against their manufactures.

It is immaterial how boots and shoes are packed for importation into Italy. The usual American custom of packing the best goods in dozens would probably be best.

WILLIAM L. ALDEN,  
*Consul-General.*

CONSULATE-GENERAL OF THE UNITED STATES,  
*Rome, November 17, 1885.*

## GENOA.

### REPORT OF CONSUL FLETCHER.

#### LEATHER.

From a Genoese point of view the leather trade is quite extensive in this consular district. There are about 25 tanneries in this province.

In addition to local supply, hides and skins are imported from the Plate country (South America) and from the East Indies. The cost at the tanneries is about 1 franc per kilogram, or 19.3 cents for every 2½ pounds.

Oak-tree bark and valonia are used in tanning; the first named is brought to Genoa from adjoining provinces of the Kingdom. Valonia is imported from the Ionian Isles and Greece proper.

It is estimated that 450,000 hides are annually tanned in this district. After supplying local wants, the output, chiefly sole leather, is sold in the interior provinces, and to traders in France, England, and Germany. (The quantity exported to the countries named cannot be ascertained.)



There are no regularly established houses in Genoa for the importation of leather. Shoemakers import from France, Germany, and Belgium the kind and quantity needed for their own business; calf and kid skins, prepared for working into shoes, are the principal imports. Great caution is used in the purchase of these goods. Not a dime's worth is bought on speculation. The motto seems to be, "Buy only for present wants." Total cost of imported leather laid down in the shop, from 10 to 13 lire per kilogram.

Sheep-skins are purchased at from 15 to 20 lire per dozen.

The tanneries sell domestic sole leather at 3.70 lire per kilogram; the importation from the Plate country and Indies at 3.20 to 3.30 lire per kilogram.

#### AMERICAN LEATHER.

Beyond a trifling quantity from New Orleans, American leather cannot be found in this district, and no comparison can be made between American leather and that manufactured here.

The only fault found with American leather is its high price. Shoemakers say they are willing to try this product of the United States, providing they can purchase it as cheaply as the leather they now use. The remedy, then, is to erase the fault; that is, reduce the price.

Unless American leather can be sold at rates or prices at par with the same grade of goods brought from other countries it would be useless to attempt its introduction into this province, even if its superiority over all leather manufactured elsewhere were an acknowledged fact. Search the world over and you cannot find a more cautious people than the Genoese, or a class that will venture less in enterprises and new things. It would be an impossibility, in my opinion, to persuade the people here to pay even one cent more per pound for American goods than for the stock now in use.

But, granted that the obstacle referred to could and can be removed, the best means then for placing American goods in this market would be for those interested in extending the trade to send a man here who thoroughly understands the leather business. Such a man would soon discover what the prospects were, and the outlook for the trade in future. If the plan suggested is too expensive then select a reliable person in this city who will work on commission. As stated elsewhere there are no regular houses in Genoa for the importation of leather. Paolo Bertucci, esq., and Pagunelli Brothers, of Genoa, are importers of hides, and are willing to deal in American leather and shoes.

#### BOOTS AND SHOES.

There are no factories in this consular district for the manufacture of boots and shoes. Shoemakers are very numerous, however, and they supply all local demands. No shoes are exported nor are any imports made, because, it is said, of the tariff.

Common sewing-machines are used; most of the heavy sewing is performed by hand. Machines run by power were tried at one time but soon discarded.

#### STYLES.

Boots are not made or worn in Genoa as a rule. You will see only travelers wear them. Low shoes, laced by ribbon, are worn by both sexes in summer. For winter use shoes with elastic sides, reaching

slightly above the ankle, are in demand. Ladies shoes have very high heels, standing inward till they almost reach the hollow of the foot.

Shoes made to order cost no more than those to be purchased ready-made. Measures are taken with a strip of paper, and slits made thereon as the shape of the foot warrants. "Pointed toe" is the prevailing style for male and female. "Button shoes" are hardly ever worn here, chiefly, I think, on account of the miserable thread, which will not hold a button on a fair-fitting shoe twenty-four hours. Those little button-fasteners now so common in the United States, it seems to me, if used here, would dispense with the old-fashioned ribbon and elastic.

A pair of shoes costs less in Genoa than in the United States (average price here, \$2.50), but they do not wear nearly as long as those purchased at home. This fact must be attributed either to the superiority of American leather, or else to the hard streets and peculiar atmosphere of this section of country.

#### MISCELLANEOUS.

The records at this consulate show that hides and skins are exported to the United States from the port of Genoa occasionally, as witness the following items:

Declared value of hides shipped to the United States, September quarter, 1881 .....	\$27,580 00
Declared value of skins shipped to the United States, December quarter, 1883 .....	905 00
Declared value of hides shipped to the United States, June quarter, 1884.	27,776 00

Freights to Genoa from South America are very low. Merchandise is often brought to this port from the Plate country at rates varying from \$1.20 to \$1.95 per ton. These low rates probably account for the low prices paid for imported hides at the tanneries here.

JAMES FLETCHER,  
*Consul.*

UNITED STATES CONSULATE,  
*Genoa, Italy, July 22, 1885.*

#### LOMBARDY.

##### REPORT OF CONSUL WILSON.\*

##### LEATHER.

In Milan and in Lombardy the condition and extent of the leather industry are rather backward, they are improving and promise a fair future.

The development of this industry in Lombardy has experienced a serious check since June, 1883, because of the increase of the duty on importation from 2 francs per quintal to 40 francs per quintal.

Besides all that can be secured from the local slaughter-houses, a great deal is obtained from the East Indies, South America, Africa, Russia, Prussia, and other places where the prices are inexpensive. At

\* In transmitting his report Consul Wilson writes: "I have given the inquiries my earnest attention, and have found generally an indisposition to furnish information, for fear it would be injurious to themselves. Nearly all seem to be very suspicious, and some absolutely rude in their replies, when questioned."

the tanneries the prices vary according to the different qualities of the merchandise, if only dried, or moistened or pickled (*salmojate*); but if ready for cutting and manufacture it costs from 2½ to 3½ francs per kilogram, raw or common.

#### TANNING MATERIALS.

Oak bark and valonia are used in Lombardy without the use of sumac, the proportions of these materials being different, according to the qualities of the leather to be obtained. The two qualities of oak bark, dark and white, come from Tuscany, the island of Sardinia, Switzerland, and Germany; valonia comes from the provinces of Asiatic Turkey, and China. I do not know of any other substance that is employed by the tanneries.

#### DOMESTIC LEATHER AND IMPORTS.

The hides or skins of oxen or cows well tanned find a market in Austria from Milan, to the amount of about two millions of kilograms, and also for the Venetian provinces of Tuscany and Romagna. For all the rest of the different qualities of skins here, the consumption is about two millions more of kilograms; but this quantity is not sufficient for the wants of Lombardy and they are obliged to depend upon other sources, as Paris, Berlin, Vienna, &c. And yet they send and sell shoes in Egypt, where they are well received.

It is impossible to say anything about the quantity of leather imported. It can only be said that the best skins for fine boots and shoes come from France.

#### AMERICAN LEATHER.

At present no leather whatever is imported from the United States, but it may be said that three or four years ago the Milanese market imported some tons of pickled skins (*salmojate*) from the ports of the United States, but the trial was a bad one, for though the skins were cheap still they were found to be insufficiently tanned, so that, to make the best out of them they were obliged to submit them to a retanning. The cost of such leather was from 2 francs to 2½ francs per kilogram. It was probably refuse leather and bought as such.

It is not possible to make any comparison between American leather outputs and those of any other country, here in Milan.

In the present state of affairs it is difficult to say how American leather would suit the market, but it might turn out favorably if the articles were to be of a good quality and of a convenient price.

The faults found with American leather are, bad tanning; that is, it is not sufficiently impregnated with tanning materials to preserve it from corruption. The skins from the United States are reported as imperfect, having many holes and abounding in cuts. This refers to leather that has been partially cured.

Cheap and good qualities of every kind and condition of leather when introduced will obviate competition or greatly reduce it, and thus encourage the merchants here to try again the raw materials, beginning with these.

It is difficult to find persons who would engage in the importation of American leather, at present in Milan or in Lombardy; there is no one who now imports American leather, and tanners are very diffident, fearing competition.

Merchants of ready-made skins are engaged in the trade with France, Germany, Austria, Hungary, Russia, and Switzerland.

## BOOTS AND SHOES.

No factory system of shoemaking is known in Milan, nor is machinery used in the manufacture of boots and shoes. Only some sewing-machines are used in uniting the upper part of the shoes, which is composed of different pieces, all the rest being made by hand.

All classes or styles of shoes are made here in Milan or in Lombardy, and consequently worn here, and a few are exported to Egypt and Greece. It is impossible to speak of shapes and styles, because they change according to fashion, and generally the leading articles come from Paris every month:

The present styles of boots and shoes (comparatively but few are made or worn in this neighborhood) are with pointed toes, commonly known as the "tooth-pick" style, and worn by both males and females.

The output is consumed mostly in Milan, with the exception of a small amount sent to Austria, Egypt, and Greece.

## FOREIGN SHOES.

At present there are no boots or shoes imported, and consequently no comparisons can be made. I am unable to give an opinion as to the best means for the introduction and enlargement of American trade in boots and shoes.

I believe the price demanded for boots and shoes here is much less than in the United States, which is owing to the cheapness of labor and materials.

*Tanners, dealers, &c., in Milan.*—Domenico Nasoni, Viale P<sup>a</sup>. Ticinese, No. 8; Gustano Farinoni, Via Visconti, No. 19; Andrea, Via Rugabella, No. 11; Bacciocchi Fratelli, Via All Sabbietti; Guido Sencsi, in Lodi.

*Merchants in leather and boots and shoes.*—Agostine Carozzi, Via Pattari, No. 3; Giuseppe Ozzeni, Corso Torino; Gajo, Viale Pattari, No. 4; Ayusso & Barinetti, Via S. Clemente, No. 8; Torinese Calzolena, Corso Torino, No. 18; Fortunato Farinoni, Via Agnelli, No. 7; Castelli Fratelli, Via Clerici, No. 7; Benedette De Bernardi, Via Disuplini, No. 15; Carlo Pirelli, Via Unione, No. 13; Angelo Isacchi, Corso Venezia, No. 89.

JAMES M. WILSON,  
Consul

UNITED STATES CONSULATE,  
Milan, May 23, 1885.

## TUSCANY.

## REPORT OF CONSUL WELSH.

As in all civilized countries, the leather industry of Tuscany is considerable, but the exportation of hides has almost entirely ceased since the resumption of specie payment April 14, 1883. Formerly the depreciation of Italian currency offered a handsome profit when gold coin could be obtained for merchandise of any description, but with the rise in the apparent value of Italian paper the profit, and, consequently, the exportation, ceased.

## THE SUPPLY OF HIDES.

The hides actually used in Tuscany for the manufacture of sole leather are obtained from the native slaughter-houses, although in South Italy

tanners, to produce a finer quality of sole leather, use hides imported from South America and Australia.

In Tuscany fresh skins weighing from 28 to 35 kilograms each will now bring 95 to 110 francs (about \$19 to \$22 per 100 kilograms); for heavier hides, which cannot be said to be marketable in Italy, the prices are higher, owing to an unusual demand for them in Germany and England.

For *tops* very few skins are to be had at the Tuscan slaughter-houses, and, with the exception of a few excellent calf-skins, the tanneries are indebted for their *top* hides to foreign importation; these skins are brought chiefly from Africa and British India.

#### TANNERIES AND TANNING.

For tanning, various kinds of bark are used in Italy, but in Tuscany the bark of the holm-oak and green oak (*Quercus ilex* and *Quercus viridis*) is employed. Both of these descriptions are very abundant, and what may not be used in Tuscany is exported to the north of Italy.

To tan sole leather, the bark of the cork-oak (*Quercus suber*), of which the best is to be obtained in Sardinia, is used, and gall-nuts (*Gallæ tinctorum*) from the *Quercus infectoria*, fetched from Greece, are employed to impart special toughness and color.

#### TUSCAN LEATHER.

The quantity of leather manufactured in the native tanneries is sufficient to supply the Tuscan market, and as there is little or no surplus the exportation amounts to nil or almost so.

For the finer or fancy qualities of leather no manufactories exist in Tuscany, and for supplies of these qualities imports are made from Austria, Germany, and France.

#### AMERICAN LEATHER.

Unfortunately there are as yet no importations from the United States—that is, no importations of any consequence. Trials have been made here of American leather, but they have not yet proved successful, as the leather did not compare favorably with the native production. The faults found in American leather are largely due to the prejudices of the Tuscan dealers; these latter are generally an uneducated class and even bitterly opposed to innovations. In American leather the dealers object to the darkness of the surface color and the red color of section, both of which peculiarities are due to the materials used in tanning, such as pine bark, &c.

#### BOOTS AND SHOES IN TUSCANY.

There are in Florence 106 shops for shoemaking, averaging about 5 workmen each.....	530
Shoemakers in charitable institutions.....	171
Shoemakers in prison ( <i>murale</i> ).....	33
Cobblers, about .....	210
Employés in all, about .....	944

No machinery is used in shoemaking, but shoes and boots manufactured in Genoa with machines are sold in Florence by two branch shops, but on a very limited scale.

## STYLES.

Most of the shoes made and worn in Tuscany are of cowhides, with the upper leather jointed with cloth so as to give more comfort to the foot. Almost all are made with elastic bands and high heels, except those for laborers, when double soles, tacks, and leather strings are used.

The classes wherein American manufacturers might be likely to succeed are for ladies and children, viz, half-boots, shoes, light shoes, half-shoes of calf-skin or kid, glazed or patent leather, with buttons or amulets, or clasps, but on no account with elastic sides.

Boots and shoes of that kind, with square, round, or pointed toes, single or double soles, and those with buttons, might be made by machinery for children, but always by hand for ladies, and low heels are preferred.

The sizes are according to French numeration, viz, Nos. 18 to 23, for little children, to be very fine; Nos. 23 to 33, for growing children, to be strong; Nos. 33 to 40, for ladies, well finished.

The figures of the aforesaid numeration find explanation in embracing two numbers to represent one centimeter (.3937 inch, 2.54 centimeters being equal to 1 inch).

The prices at which said boots are sold vary from 3 to 5 lire for Nos. 18 to 23, 5 to 9 lire for Nos. 23 to 33, and 13 to 22 lire for Nos. 33 to 40.

The output of boots and shoes produced in the cities of this district is usually carried from place to place to weekly markets or to fairs when held.

## IMPORTED BOOTS AND SHOES.

Children's boots and shoes are imported from France and those for ladies from Germany, but both are fancy articles and imported on a very limited scale.

## HOW TO INTRODUCE AMERICAN BOOTS AND SHOES.

The best means for the introduction of American trade in boots and shoes in Tuscany is to establish a depot in Florence, well supplied with assorted boots and shoes, or to make a consignment to some reliable dealer in this line of business.

## IMPORTERS OF BOOTS AND SHOES.

The most important firm engaged in the imports of boots and shoes at Florence is that of Signori Ploner & Co., 5 Via Calzaiol, and I would advise any house wishing to make a venture to correspond with them directly. They generally receive consignments at 5 per cent. commission upon goods sold, and afterwards, if they find a market, they would be willing to deal on their own account.

## PACKING.

Children's shoes are packed by dozens in boxes and boots by half dozens, twelve dozens of each kind making a case.

Ladies' boots and shoes are kept pair by pair in a separate box, 100 pairs filling a case.

Shipments by steamers to Leghorn or Genoa are preferable.



In conclusion, I may mention that throughout Italy a strong prejudice exists against machine-made boots and shoes. The Government, in contracting for the supply of the army, navy, and customs employés, insist upon hand-made articles, basing their preference on the fact that hand-made boots or shoes will stand more wear and tear, and are therefore the cheaper article.

In this connection I may state that contractors for the army supply the materials and pay for the labor at the rate of from 1½ lire (30 cents) to 1 lire 75 centimes per pair (35 cents).

Traders in the United States desiring to introduce their boots and shoes into this district can do no better than communicate directly with Messrs. Catani & Powers and Messrs. Ploner & Co. here in Florence.

WILLIAM L. WELSH,  
Consul.

UNITED STATES CONSULATE,  
Florence, May 28, 1885.

*Imports of hides, leather, boots and shoes, at Florence, Italy, during the year 1884.*

Articles.	Whence imported.					
	Austria.	France.	Germany.	England.	Switzerland.	Total.
Oxen hides, raw and large.*kilos .....			5, 629			5, 629
Oxen hides, small.....do.....			60			60
Hides :						
Dressed without hair...do ..		90	18			108
Dressed .....do.....	59	194	385		48	686
Varnished .....do.....	383	209	5, 924		1, 196	7, 711
Dressed without hair and finished for soles .....kilos..	47		91			138
Dressed without hair and finished for other purposes .....kilos..	4, 580	17, 568	24, 500	1, 639	2, 683	52, 060
Kid skins, tanned .....do.....	109	574	196			878
Boots and half boots.. ....pairs..	4	50	4	12		70
Shoes of every kind .....do.....	478	87	81	15		661

\* 1 kilogram = 2.2046 pounds.

## LEGHORN.

### REPORT OF CONSUL SARTORI.

#### LEATHER.

The general depression in trade existing throughout Italy, and which is severely felt in this district, has affected these as it has all other industries, and the official returns show a large decrease as compared with previous years.

In Leghorn there are five tanneries, employing 350 men and producing annually 25,000 hides. There are also two other establishments, which are at present closed. Besides the hides of the beasts butchered here and those from the interior, of which there is no record, there were imported in 1884 4,340,139 pounds, as per the annexed tables, showing the imports and exports of that year.

Sole leather.

IMPORTS.

Country.	Quantity.	Value.
	<i>Pounds.</i>	
France.....	213	.....
England.....	983	.....
Holland.....	365	.....
	*1,561	\$465 90

\* Subject to a duty of \$8.68 per 220 pounds.

EXPORTS.

Country.	Quantity.	Value.
	<i>Pounds.</i>	
Egypt.....	1,738	.....
France.....	3,010	.....
Greece and Malta.....	440	.....
Tunis and Tripoli.....	44,548	.....
	49,736	\$15,571 83

Varnished skins.

IMPORTS.

Country.	Quantity.	Value.
	<i>Pounds.</i>	
Austria.....	757	.....
France.....	517	.....
Germany.....	3,194	.....
England.....	1,157	.....
Switzerland.....	107	.....
	*6,432	\$8,486 98

\* Subject to a duty of \$14.50 per 220 pounds.

Skins, simply tanned without hair.

IMPORTS.

Country.	Quantity.	Value.
	<i>Pounds.</i>	
Austria.....	4,750	.....
France.....	44,493	.....
Germany.....	12,624	.....
England.....	1,390	.....
Switzerland.....	30	.....
Belgium.....	948	.....
Total.....	*64,246	\$57,036 43

EXPORTS.

Country.	Quantity.	Value.
	<i>Pounds.</i>	
Egypt.....	385	.....
France.....	513	.....
Greece and Malta.....	532	.....
Tunis and Tripoli.....	2,673	.....
Total.....	4,105	\$3,151 10

\* Subject to a duty of \$9.65 per 220 pounds.

*Skins, raw, fresh, and dry.\**

## IMPORTS.

Country.	Quantity.	Value.
	<i>Pounds.</i>	
South America.....	5,082	
Egypt.....	223,816	
France.....	1,288,746	
Germany.....	34,945	
Greece and Malta.....	3,080	
England.....	1,485,714	
India.....	1,097,340	
Spain.....	8,514	
Turkey.....	17,380	
Tunis and Tripoli.....	77,414	
Total.....	4,242,031	\$987,593 93

## EXPORTS.

Country.	Quantity.	Value.
	<i>Pounds.</i>	
Austria.....	13,068	
France.....	59,202	
Greece and Malta.....	12,894	
Spain and Portugal.....	2,523	
Sweden, Norway, and Denmark.....	2,576	
Turkey.....	7,821	
England.....	1,285,496	
Total.....	1,333,590	\$310,024 39

\* There is no duty on this class.

*Goat and other small skins.\**

## IMPORTS.

Country.	Quantity.	Value.
	<i>Pounds.</i>	
France.....	165	
Germany.....	2,264	
Tunis and Tripoli.....	15,884	
Turkey.....	1,458	
	19,771	\$4,769 80

## EXPORTS.

Country.	Quantity.	Value.
	<i>Pounds.</i>	
France.....	97,881	
Germany.....	1,080	
England.....	34,434	
Sweden, Norway, and Denmark.....	11,374	
	144,769	\$44,450 60

\* There is no duty on this class.

The thick hides are principally native, and their cost and the cost of those imported at the tanneries are as follows :

Description.	Weight.	Price.
	<i>Pounds.</i>	<i>Cents.</i>
Salted hides .....	66 to 88	11½ to 13½
Calf-skins, dried.....	5 to 6	40
Green hides .....	45 to 65	9½
Green calf-skins.....	11 to 13	16
Hides dried with hair on.....	5 to 30	23

The prices of the different hides after tanning are as follows :

Description.	Weight.	Prices.
	<i>Pounds.</i>	<i>Cents.</i>
Native hides .....	15 to 22	35 to 40
Calf-skins .....	3 to 6	80 to 85
Imported hides.....	4½ to 9	45 to 45

The men are paid monthly and earn from 58 cents to 97 cents per day of thirteen hours.

The materials used in tanning here are oak bark, bark of cork tree, and valonia. The two former are obtained from the interior, and the latter is imported from the Levant. Their cost at the tanneries is as follows :

	<i>Per ton.</i>
Oak bark .....	\$27 50
Cork bark .....	42 50
Valonia .....	62 75

There are no hides or skins imported from the United States, and I could get no information in regard to them from any of the dealers here. The impression exists here that a good deal of hemlock is used in tanning in the United States, which they say gives the leather an unpleasant odor.

BOOTS AND SHOES.

Although Leghorn has upwards of 100,000 inhabitants there is not a single factory of boots and shoes in either the city or province, nor is there any wholesale trade to any extent. There are a large number of small shops where they make to order, keeping but little or no stock on hand, at prices varying from \$1 to \$5 per pair, by far the largest consumption being at the lower range of prices. The kinds usually worn here are for men laced or buttoned shoes of leather, light in weight with calf-skin tops, and low shoes of varnished leather, in shape following the Paris fashions, high heels and pointed toes; for women very light shoes either with elastic, laced or buttoned, with very high heels (Louis XV) set far under the foot.

VICTOR A. SARTORI,  
*Consul.*

UNITED STATES CONSULATE,  
*Leghorn, November 3, 1885.*

## PALERMO.

## REPORT OF CONSUL CARROLL.

## LEATHER.

The leather interests of this consular district are scarcely entitled to so dignified a caption as "industry." There are, however, many small shoe-stores which do a good business, consisting exclusively of hand-made shoes. The manufacture of shoes by machinery in Sicily is practically unknown.

Rawhides are imported from England, France, Austria, Egypt, China, Germany, and Holland, the value thereof during the year 1884 being \$142,800.

Tanned hides are imported from America, Germany, England, France, Russia, and Holland, the value thereof during the year 1884 being \$85,685.

Leather is imported from France, England, Austria, Germany, and Holland. During the year 1884 the total value thereof was \$45,932.

The value of morocco leather imported during the same year was \$1,100. It came from France, England, Germany, and Austria.

Thus far few boots and shoes have been imported, the total value during the year adverted to being only \$160. They came from France, Tunisia, America, Turkey, and England. Of these the majority were fancy, the value of this style being \$105.

Those engaged in the business of hides and skins in Palermo are: Sansone Raffaele, Vincenzo Barocchiere, Giacomo Ingrassia, and Pietro Ganci, to whom all communications, in order to be understood, should be in the Italian language.

## BOOTS AND SHOES.

The people here, as a rule, have short feet and high insteps, somewhat similar to those of our Southern countrymen, only not so symmetrical or graceful. They like their shoes to be tight-fitting and fancy. All styles are in use, but the narrow toe is most effectual.

The Sicilian is peculiarly neat in his entire outward attire, and he will spend all his income or earnings in order to keep up with his neighbors in this respect.

In my judgment the American fancy machine-made shoe would find a ready sale here after a little effort. The shoe cannot be too fancy or "loud" in order to accomplish this. The more fancy the style the more readily will the market be found. It is a much better appearing shoe, so far as sewing and fine work are concerned, than any made or seen here, and its cost is more in keeping with that of Palermitan shoes.

## STYLES.

The class and style of boots and shoes made and worn in Palermo are of very good material and generally fanciful. A considerable number wear patent-leather shoes, interspersed with fancy cloth or leather of blue, yellow, or other colors.

Shoes are generally made low and of fine or thin material. Gaiters are worn to a limited extent, so are boots, but in a less degree than gaiters, and only, as a rule, by persons while hunting, or whose business requires them to frequent wet or muddy places.

The heel on the shoes and gaiters worn by all classes are nearly two inches high, and often higher.

The best grade of a low fancy patent-leather shoe can be obtained for \$3 or \$3.30, and shoes of other leather for from 60 cents to \$2.50 per pair. Gaiters can be obtained for from \$2.50 to \$3, and boots, depending on the style and quality, from \$1 to \$7.

#### AMERICAN GOODS.

The workmanship on boots, shoes, and gaiters is generally durable, but inferior in appearance to that of the United States; even the little which they have learned to do by the sewing-machine does not seem so fine as work similarly done in the United States.

In my judgment the patent-leather in use here is superior to that used in the United States. It appears to neither crack nor break, although the elements which appear to induce such elsewhere, such as heat, dry weather lasting months at a time, obtain here.

Other leather in use here, although durable, seems neither as good nor so well turned or finished as that seen in the United States.

Ladies here wear low shoes and gaiters with very high heels, which are not, as may be sometimes seen, in the middle or hollow of the foot, but situated at the end of the heel, with a gradual inclination forwards. This may or may not be the cause of the ungraceful carriage of the women of Palermo, but it is thought to be so. The price of a lady's shoe or gaiter is from 50 cents to \$3.

Shoes and gloves are about the only cheap commodity in Palermo, and on this account it may be difficult to introduce American shoes on a large scale at this time. Still, I am of opinion that it is possible to do so, if properly undertaken.

#### INTRODUCING AMERICAN GOODS.

The great difficulty experienced here, as in other places, is that the American dealers, unlike those of other countries, desire to introduce their goods through the efforts of the consul, and not through their own. For instance, they write the consul, inclosing him long catalogues and circulars, and request him to read these carefully, and then submit the matter to the principal house or houses interested.

The consul, at the cost of considerable time and trouble, does this, and then writes the firm or firms of the result, explaining the proper course to pursue in the premises and the way their goods can or may be introduced, and rarely thereafter hears a word from them in approval or disapproval of his course.

In reply to inquiries and requests of the character adverted to, those making them are invariably informed that they should send an experienced person who can speak Italian to introduce their goods, who could either take orders for articles beforehand, and then have them forwarded to him for delivery, or request his principal or principals to send him a limited number thereof to keep on hand. It has also been suggested to the persons under consideration that those of them who were interested in the exportation and sale of articles of the same nature in foreign countries, should combine and share a proportionate amount of the expenses to a qualified person to introduce their goods, if no one of them felt like incurring the expense thereof alone. This mode is suggested to those engaged in the shoe and leather trade, and it is believed, if adopted, it will be successful, and finally result in opening a large mar-



ket for leather and footwear in Palermo, notwithstanding the prices which now obtain here.

In this connection it may be stated that the consul can be of great service in furnishing information, but that he is helpless after having done so in any endeavor he may make to introduce goods without either samples, prices, or other tangible data. Hence the allusion to the endeavor of the American dealer to introduce his goods solely through the efforts of the consul, and yet the latter has nothing to guide him but the circular or catalogue furnished by the dealer, which always praises the article to be sold, but seldom contains any other information.

PHILIP CARROLL,  
Consul.

UNITED STATES CONSULATE,  
Palermo, Italy, July 18, 1885.

## CATANIA.

### REPORT OF CONSUL WOODCOCK.

#### HIDES.

In Catania, Sicily, there are eight tanneries. The work is done in primitive style; no machinery is used. The method is the same that was in vogue here centuries ago.

The hides used are mostly from South America, Africa, and India.

These are not imported direct to Catania from said countries, but are purchased through English or Italian commercial houses.

The cost of hides at the tanneries of course varies according to the quality. I have been informed that the tanneries here are paying for hides of prime quality as follows:

From Buenos Ayres:

dry salted .....	per 100 pounds..	\$24 07
wet salted .....	do....	11 38
From Montevideo, wide, dry hides .....	do....	21 88
From La Plata, dry, salted hides .....	do....	21 01
From Rangoon, of 13 to 14 pounds weight .....	do....	15 32
From Zanzibar, of 7 to 9 pounds weight .....	do....	11 39
From Kurrachee:		
dry hides .....	do....	16 63
salt .....	do....	13 13
From Calcutta.....	do....	16 63
From Tunis .....	do....	14 88
From Central America:		
dry, 5 to 6 pounds.....	do....	20 13
salted, 5 to 6 pounds .....	do....	18 38

These hides at the foregoing prices are generally purchased on a credit of six months at 6 per cent. interest.

#### TANNING.

The materials used for tanning are nut-gall of Smyrna and the bark of the holm-oak of Sardinia.

The sumac of Sicily is used for coloring the surface of the leather black.

The larger hides (of Buenos Ayres), of weight from 19 to 22 pounds, are soaked in water for nearly nine months before they are considered

in condition to be worked. The smaller ones, weighing from 3 to 19 pounds, are kept in water from three to six months, according to weight, prior to being worked.

The tanneries of Catania produce annually of the heavier grades of leather about 180,000 pounds, and of the lighter grades about 370,000 pounds. Very little of this leather is exported. It finds a ready market for home consumption in this island.

Leather manufactured here (from hides of Buenos Ayres, of weight from 19 to 22 pounds), best quality, brings in the market about 32 cents per pound.

For the lighter grades the price is less, varying according to its weight and quality.

#### AMERICAN LEATHER.

No hides or leather are exported from the United States to Catania. Varnished or glazed leather and sole leather are imported to some extent from the European continent, mostly from Germany, France, and Austria.

No American leather being used here, it is impossible to compare it with that of Sicily. Judging from my own experience and observation, American leather is more compact in its texture, and hence is superior in excluding moisture, and is much more durable.

For the purpose of introducing American hides and leather into this consular district, I think the best method would be to have competent and reliable agents in this city furnished with samples, who would advertise freely and labor for its introduction by canvassing or otherwise. I know of no persons or firms here who make a specialty of importing hides or leather. This is done principally through agencies established here.

Mr. Eugenio Consoli, of this city, deals in hides, acting as an agent. He is an Italian, but speaks and writes the English language fluently. He has expressed to me his willingness to interest himself in the introduction of American hides and leather. He expressed himself as willing to sell here on a commission of 2½ per cent.

The following-named persons are the proprietors of tanneries here and are interested in hides, to wit: Vito di Paolo, Salvatore Capace, Fratelli Mazzarino, di Giunseppe, Giunseppe Marano Caruso, Antonino Pennivi, Giuseppe Marano, Giuseppe Musumeiz Privitera, and Gaetano Parisi.

#### BOOTS AND SHOES.

In this consular district there are no wholesale manufactories of boots and shoes. No machinery is used except the American sewing-machine.

There is no trade so well represented in this city as that of the shoemaker.

In the shoe-shop but little made-up stock is kept on hand, the work being executed as ordered, and according to measurement.

The style of the Italian boots and shoes is different from that of the American and English. The Sicilian admires a small foot. He sacrifices his comfort to this personal vanity. The shoemaker is obliged so to construct the shoe as to make the foot appear diminutive. Consequently the toe of the shoe is narrow and pointed, crowding the toes of the foot upon each other. The heel is small and high.

The half-boot or gaiter is generally worn here. The workmanship is fine and of neat finish. For wear and durability they are very much

inferior to the American. An American pair will last twice as long. No boots or shoes are imported into this district, and there is but little or no export of boots and shoes from this district.

#### WAGES AND PRICES.

A skilled Sicilian shoemaker is here paid 60 cents per day for fourteen hours' work, he boarding himself. Those less skilled are paid from 40 to 50 cents per day. Boys get from 20 to 30 cents, and girls from 17 to 20 cents.

Boots and shoes command the following prices, to wit:

Men's half-boots or gaiters, from .....	\$2 50	to	\$3 00
Ladies' gaiters, from .....	2 50	to	4 00
Men's high boots, from .....	5 00	to	10 00
Men's shoes, from .....	1 60	to	3 00
Ladies' shoes, from .....	2 00	to	3 00
Ladies' gaiters, bronzed, from .....	4 00	to	5 00
Children's shoes :			
From 3 to five years, from .....	60	to	1 00
From 5 to 10 years, from .....	1 20	to	2 00
From 10 to 15 years, from .....	2 00	to	3 00
Workmen's half-boots (coarse, uncolored leather), from .....	60	to	1 20
Workmen's shoes (coarse, uncolored leather), from .....	60	to	1 20
Workmen's high boots (coarse, uncolored leather), from .....	2 40	to	4 00

#### NEEDS OF THE MARKET.

To compete with the Sicilian manufacturer of boots and shoes the American would have to construct his in accordance with the Sicilians' idea of beauty; that is, the shoe must make the foot look small and neat. The price must be as low and the material as good as that of the shoemaker here. The imported goods should be placed in the hands of merchants who would make a specialty of selling them. The superiority of workmanship and durability of the American shoe, when once learned by experience, would make it exceedingly popular here.

The leather that is imported is placed in the market in bales, each bale containing from 20 to 24 pieces, each piece being the half of a hide cut longitudinally from the head to the tail.

The large unwrought hides also are imported in bales. The smaller ones are packed in cases of a dozen each. Agents here, however, could arrange the bales of leather or hides in such manner as would best suit the purchaser.

ALBERT WOODCOCK,  
Consul.

UNITED STATES CONSULATE,  
Catania, August 19, 1885.

**RUSSIA.\****REPORT OF ACTING CONSUL-GENERAL SWANN.***THE LEATHER INDUSTRY OF RUSSIA.**

The history of the leather industry in Russia is more than ordinarily obscure; for those early writers who have incidentally dealt with this topic in their records, have either been exceptionally brief in their descriptions or else vague in their surmises. From such sources little can be learned regarding the processes and surroundings of manufacture that came under their notice; and the observations of these early writers, judged by modern experience, are evidently at fault. The very nature of the product, described by them, is imperfectly defined, and as for the unwholesome and unsavory messes described as elements in the preparation and manufacture of past leathers the information is so uncertain and the general descriptions so vague and varying as to place the scientific interpreter at fault, for the terms and definitions are capable of being translated into a variety of meanings and applicable to a multitude of preparations other than leather. However, these early writers all agree that the Russian knowledge regarding the manufacture of leather was of eastern origin, also that the Bulgars, their neighbors, were expert tanners.

Evidences yet exist that go far to prove Russian interest in such manufactures at an early date; for leather trappings, such as belts and horse garniture, boots, shoes, and military equipments, also sandals and armaments in leather of asserted Russian origin are still to be seen. There can also be found plain and embossed leathers of rich design, with and without metal plates attached to embroidered tannings, the ornamentation of which is decidedly Russian, as also can be seen attachments in precious metal of Slavonian ornaments in the thirteenth and fourteenth century styles of art, in connection with leather appur-

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\* Acting Consul-General Swann, in a recent report on the kустar industries of Russia, gave the following facts regarding leather and boots and shoes:

In connection with the leather industry of this government, it was found that 538 kустars purchased the raw hides, &c., and the value of output of their preparations was 291,001 rubles (\$145,545). In this total was included the manufacture of 138,295 large and small tanned hides, valued at 186,371 rubles (\$93,186). The value of the raw purchases was 125,515 rubles (\$62,757), and the expenses in connection with the preparation of the same 60,586 rubles (\$30,293), being a proportion equal to 32.7 per cent. of the value of the finished product.

From these crude returns it will be seen that the tanneries conducted upon kустarian principles are not widely developed in this government, neither do they assume other than diminutive proportions. Thus, in 1881 there were 46 such domestic tanneries; of which number 25 gave employment to 352 hired laborers, or an average of 14 hired persons per tannery.

Also 21 tanneries were conducted exclusively upon domestic principles and gave employment to 47 members of families, or an average of 2.3 to each establishment. In 1880 there were in the government of Moscow 60 manufacturing tanneries, giving employment to 1,997 persons, with a yearly output estimated by Orloff at 4,294,400 rubles (\$2,147,200).

In the neighboring government of Tver there are employed in domestic industries upwards of 50,000 kустars. One of the principal industrial occupations of the kустars in this government is the preparation of materials and wares from animal products.

In 1881 there were 2,580 persons employed in tanneries, whose annual output equaled 900,000 prepared hides, valued at 6,000,000 rubles (\$3,000,000). This industry has been in existence over 100 years in these parts. Its original character, however, the preparation of leather, has lost much of its domestic character, and in the greater number of instances has assumed proportions due to a more or less developed manufacture, as will be seen from information gathered in 1881, when the number of domestic

tenances. In fact there is much archæological data that tends to confirm the prevailing belief that leather of Russian origin may be traced back to remote times. As also does it appear that at the time when the first English patent for tanning was obtained (in the year 1627, supplemented by others in 1635 and 1660), the fame of Russian leather, known then as now by the name of "juft," was widely spread and fully appreciated abroad, for I learn that in the sixteenth century the export of this special Russian leather averaged about 1,000,000 poods (3,600,000 pounds) annually.

It would evidently be indiscreet to ignore the main point in question regarding the subject at issue, viz, Russia's source of supply, and it is impossible to imagine that a country rich in animal products could have remained for any length of time lacking the art whereby such resources could be developed. The many centuries that appear to have elapsed without any advance of consequence being made in the manufacture of leather has allowed Russia to maintain her heritage as a leather-manufacturing nation merely by force of honest action and the output of genuine product.

However, during the present generation the reputation of Russian leather has not been enhanced by modern innovations, and this remark may be accepted in a universal sense by the efforts of the rising generation of tanners to develop so-called modern improvements and new processes in a desire to hurry up, as it were, the manufacture of leather. Of later years the attention of the trade seems to be mainly concentrated upon shortening the proverbial slow process of tanning by accepting new preparations and chemical tanning liquors; also by adopting preparatory applications with a view to the more ready and more facile cleaning and preparation of the hides upon the assumption, no doubt true in many instances amongst honest traders, that such applications render the skin less liable to damage, and at the same time facilitate the absorption of tannin. However, it is generally admitted, by the public at least, but of course not by the tanner, that the quality of mod-

tanneries competing with manufactories was but 164, giving employment to 350 kustars, with an annual output valued at 80,000 rubles (\$40,000). Results most insignificant when compared with the manufacturing interests of the same government, wherein 92 manufactories (tanneries) gave employment to 2,158 persons, with an annual output valued at 6,086,000 rubles (\$3,043,000). Orloff, in his statistics of 1879, published in 1881, gives the number of manufacturing tanneries in the government of Tver as 85, with an annual output valued at 3,340,800 rubles (\$1,670,400), and the number of hands employed 1,660.

Of the extent and scope of the domestic industries in connection with the leather trade of these parts, it may not be out of place to remark that in the town of Kimri, every Saturday, that being the bazaar or market day, about 4,000 kustars arrive from the surrounding districts accompanied with from 20,000 to 25,000 pairs of boots, shoes, &c., for sale. In the Kimri district about 3,000,000 pairs of boots of all sorts are annually made, valued at 7,000,000 rubles (\$3,500,000). In the town of Kimri there are 4,000 persons engaged in the manufacture of boots, &c., and who call themselves bootmakers. In the neighborhood of Kimri, there are 19,400 kustars interested in this trade, whereas within the region and surroundings of Kimri there are 20,000 persons, kustars and others, engaged in the boot and shoe industry.

In 1812 an enormous quantity of boots was supplied from Kimri, for the use of the Russian army. In 1853-'55, the army contracts were executed in this region. Crimean war boots had an excellent reputation amongst the troops of the allies, and in 1877-'78 more than a million pairs of boots, up to the knee, and of government pattern, came from this district for military requirements.

Generally there are 16,000 persons constantly employed in the making of boots, &c., in the Kimri district. The method of working is almost entirely upon kustarian principles. There are shoemaking factories in this district wherein German machinery is employed, but they are of unimportant dimensions.

In the government of Toula the output in 1880, from domestic sources and kustarian industries of all kinds, was estimated at 23,000,000 rubles (\$11,500,000).



ern Russian leather—and no doubt this remark will apply elsewhere, as regards wearing properties and durability—is certainly not superior, to say the least, to that leather which was produced under the old régime, wherein the process of slow tanning was by oak and willow barks.

“Imitation is the sincerest form of flattery,” and the enormous quantities of imitation and sham leathers produced nowadays (I do not confine my remarks to Russia), under innumerable patents and secret nostrums, and forced, as it were, upon the market to be employed for purposes for which real leather would be used, show the necessity for the real article could it but be obtained at a reasonable price. In Russia, as elsewhere, the work of the manufacturing tanner seems to have fallen into the hands of the chemist, and it would appear as if the chemist held the key to the situation. Of course if the chemist could only give cheaper *real* leather it is impossible to imagine the vast field that would be opened to universal enterprise, even under present conditions, and Russian tanners are not less sanguine than their foreign compeers and competitors, for, according to Russian ideas, it would appear as if future generations are to be endowed with the possibilities of Russian leather. However, “the survival of the fittest” will be the survival of that trade which is least contaminated by practices of adulteration, which, by deteriorating the article, at first delude but in no long time disgust and alienate the purchaser. These remarks, however, do not apply to leather, for I am informed by a Pharisee tanner in this city that there are tricks in all trades but his.

From rudimentary school books, one's earliest knowledge of Russia is associated, educationally as it were, with the export of cattle, tallow, hides, and the manufacture of leather. Even to the uninitiated, Russian leather has been, as it is still, at least in Europe, a domestic proverb. It is known to be regretted that the statistical data regarding the condition and extent of the leather industry in Russia is but limited.

#### PRODUCTION.

In 1872 was published a special report bearing upon this subject. This investigation was authorized by the commissariat department of the army, and this report gives the first approximate idea of the yearly output of manufactured hides, tanned or otherwise prepared, in Russia.

From this report it appeared that in European Russia, including the Baltic provinces and Finland, but excluding Poland, the annual output of tanned or otherwise prepared hides made into leather was, officially, as follows:

Articles.	Number.
Cattle (horned) hides prepared.....	6, 141, 770
Horse hides prepared .....	594, 968
Sheep-skins .....	1, 900, 445
Goat-skins .....	355, 585
Total .....	9, 062, 788

Certainly this total did not represent other than a vague and local proportion of the actual material manufactured, and in no way accounted for the mass of material at the disposal of the industry.

Of the quantity of raw hides exported no mention is made, and statistics relative to exports of both hides and leather are represented by



weights; it is therefore difficult to surmise or define data of a reliable nature as to quantities.

It is also a matter for regret that in these statistics doubt is thrown upon the proportion of work done by the "kustar" in this direction. These kustars, or peasant tanners, by their home or domestic industry, indirectly monopolize what would under other conditions be a market demand for leather on the part of the commoualty of the interior of the empire. In other words, it may be accepted that the peasants, as a rule, are their own tanners and manufacture the leather for their personal needs, and even make their own boots, and lucky is the sportsman who can get a pair of knee-boots not intended for the market. It can therefore be fully understood, *when understood*, that the output from domestic tanneries in Russia forms an item of more than ordinary commercial proportions when taken in connection with the internal domestic economy of the Empire, and the vastness of this proportion cannot be understood except by those persons who have *really* taken the trouble to become acquainted with very ordinary commonplace facts, which do not appear upon the surface, and which as a rule have hitherto not been taken into consideration in connection with the resources of the leather industry of the Empire. Thus the leather industry of the "kustar" is altogether apart from the manufacture of leather as conducted and carried on in large tanneries, giving, as does this "kustar" industry, partial employment and occupation to a mass of hands in the various villages of the interior and outlying districts of the Empire, where the conversion of hides into leather by the most primitive means, mostly hereditary, has always been, as in all probability will always be, a special home calling and domestic occupation of a great population.

From other statistics dealing with this subject and published in 1875, under the auspices of the late Professor Kitarry, it would appear that the total number of tanneries, both large and small, known to the authorities in Russia in 1872 were 12,939, and it was estimated that the annual production from these sources was 10,264,218 prepared hides of all descriptions, valued at 47,535,723 rubles.

In connection with these figures, for facility of comparison, it will be advisable to accept other data published in 1871, in which at that time it was accepted that Russia contained within its confines 85 millions of souls.

The following table is also supposed to represent approximately the number of domestic animals in the Empire of Russia about that date:

Animals.	Number.
Horses .....	20, 107, 000
Horned cattle .....	28, 545, 000
Sheep .....	64, 748, 000
Goats .....	1, 330, 000
Pigs .....	11, 649, 000
Total.....	126, 379, 000

From such official data it will be seen at a glance how very unreliable is the statistical material at command, wherein is shown that with an output estimated at 10,264,218 prepared hides and skins, valued at 47,535,723 rubles, the proportion of skins tanned to head of cattle bears but the small relation of one-twelfth, and the consumption to population but one-eighth of a hide per soul.

## EXPORTS OF LEATHER.

Official returns for 1875 show the exports to have been as follows :

Description.	Rubles.
Russian leather, "juft".....	226,848
Sundry leather.....	669,250
Hides.....	2,331,590
Hides salted.....	32,776
Total.....	3,260,464

In connection with this matter must also be considered the demands made upon the leather supply of the Empire by the necessities of trades kindred to this industry, as shown in the manufacture of boots, shoes, &c., mittens, saddlery, harness, trunks, belting, skin clothing, &c., and which industrial occupations received official recognition as giving employment to 60,000 hands, with an annual production estimated at 130 millions of rubles.

Under such circumstances I cannot but agree with the unofficial assertion made by Riloff in 1881, that the annual home demand upon the industries engaged in the preparation of leathers in European Russia, the Baltic provinces, Finland, Circassia, and Siberia, could not at the time these statistics were presented be justifiably accepted at less than from one-quarter to one-fifth part of a hide per soul. Under such circumstances the annual demand for the needs of the Empire would more nearly approach a manufacturing and industrial output of from 17 to 22 millions of hides, as would the value have been from 70 to 90 millions of roubles.

In the matter of the export of the specialty known as "juft," or Russian leather, it is acknowledged on all sides that this product as an article of export does not occupy that position abroad which at the first glance would seem feasible and possible, considering the enormous mass of raw material at the disposal of the trade, gathered as it may be from all parts of the Empire, for ready conversion into leather at home for internal needs and subsequent export abroad.

Official returns for 1875 show the imports into Russia to have been valued as follows:

Imports.	Value.
	Rubles.
Raw materials.....	1,704,225
White leathers, calf skins, morocco, &c.....	1,164,950
Cattle and horse hide leather.....	1,514,204
Lacquered leathers.....	150,175
Total.....	4,533,551
Exports, 1875.....	3,260,464
Excess of imports over exports, 1875.....	1,293,087

From a mere consideration of these returns it would appear that in 1875 the value of the export of prepared or manufactured leathers of Russian make was almost 900,000 rubles, whilst the imports into Russia of leathers probably of Russian origin equaled 2,900,000 rubles, or

nearly two millions of rubles in excess of Russia's exports in a like direction.

It would also appear on the surface that Russia, a cattle-breeding region, formerly rich in animal products, lacked raw material to the extent of 1,704,225 rubles, and thus go far to prove the vaunted assertions so common amongst travelers, that the linden and birch bark sandals of the peasants, and the bast harness, &c., so common in the interior of Russia, had their origin in a lack of absolute technical knowledge, or else in the dearth of necessary material for conversion into leather.

As bearing upon this topic it may be advisable to delve a little further and take into consideration the following table, which gives a statistical view of the distribution of domestic animals in various countries, with the proportion of such to each 100 of the population, in 1872.

Animals.	Russia.	Austria.	Hungary.	England.	Germany.	United States.
Horses .....	23.5	7	14	8	9	22
Horned cattle.....	33.8	36	34	30	38	26
Sheep.....	75.7	24	97	101	79	73
Pigs.....	13.6	12	28	13	17	65

#### CATTLE PESTS.

Should such statistical data be considered trustworthy as bearing upon the source of supplies in Russia's leather industries, from such evidence it will then be seen that Russia occupied the first position amongst nations with regard to horses, thanks to the wealth of Siberia, where the number of horses fully equaled that of the population. Regarding cattle, Russia falls behind many powers, for in this item, as is conclusively proven, the domestic economy of the agricultural community of the Empire suffers at regular intervals enormous losses, and such serious reverses are not confined to any given locality, but are general throughout the realm, by reason of the annual appearance—I put it annually, for seldom a year passes without its presence being felt—of the scourge or cattle epidemic. The yasvoi or tchouma, better known as the Siberian pest, decimates the herds and stock. This plague, it would appear, is hereditary, as it is most certainly indigenous to the country. In Russia hundreds of thousands of cattle and horses fall annually (it attacks horned cattle, horses, sheep, deer, swine, and goats, also persons by contamination) from this cause alone, and the communal loss may be safely estimated at tens of millions of rubles annually. The proverbs of the peasantry regarding the skins of such stricken cattle are characteristic. “Touch not, for the devil will do his own currying.” “Good willow will not patch devil's hides.” “Earth is ‘Yasva's’ best tanner,” &c. Hope, which in this instance is but the forerunner of future evil, has faith in the ultimate eradication of this scourge, which has done more to impede the development and ruin the progress of the leather industry in Russia, apart from the question as to propagation of stock, &c., than all the other elements combined. It must, however, be candidly admitted that the dearth of sanitary and veterenarial knowledge in the outlying communes, as also the general ignorance of the agricultural community of the Empire, predetermines the possibility of such eradication to remote decades.

NUMBER OF DOMESTIC ANIMALS.

The following table gives approximately the number of domestic animals in European Russia, exclusive of Poland and Finland, from 1851 to 1876, in periods of five years, and the percentage of the different years to 1851, that year being taken as 100:

*Domestic animals in European Russia, excluding Poland and Finland.*

Year.	Horses.	Per cent.	Cattle.	Per cent.	Swine.	Per cent.	Sheep.	Per cent.
1851.....	16, 155, 000	100. 0	20, 962, 000	100. 0	8, 886, 000	100. 0	37, 527, 000	100. 0
1856.....	15, 063, 000	93. 2	21, 351, 000	102. 3	9, 104, 000	102. 4	40, 705, 000	108. 4
1861.....	15, 190, 000	94. 1	20, 638, 000	98. 3	9, 382, 000	105. 6	42, 379, 000	112. 9
1866.....	15, 266, 000	94. 5	21, 534, 000	103. 2	9, 504, 000	107. 0	44, 745, 000	119. 2
1871.....	15, 568, 000	96. 3	21, 504, 000	102. 5	9, 594, 000	108. 0	44, 250, 000	117. 9
1876.....	16, 150, 000	100. 0	21, 857, 000	104. 3	9, 270, 000	104. 3	44, 928, 000	119. 7

The following table represents the number of domestic animals in Russia, Poland, and Finland, compiled from statistics published in 1878:

Countries.	Horses.	Cattle.	Sheep.	Goats.	Swine.	Camels.	Deer.
European Russia, 1877....	15, 154, 343	23, 450, 187	44, 997, 911	1, 499, 800	8, 098, 700	30, 000	263, 000
Poland Russia, 1876 .....	1, 043, 713	2, 752, 600	5, 813, 413	20, 691	1, 538, 746	.....	.....
Finland Russia, 1876.....	285, 062	1, 120, 432	1, 010, 924	27, 096	201, 647	.....	79, 715
Total .....	16, 483, 118	27, 323, 219	51, 822, 248	1, 547, 587	9, 839, 093	30, 000	342, 715

In 1881, under compulsory insurance, there were in Poland 2,429,922 head of cattle.

Finland possessed in 1878 275,281 horses, 1,125,600 cattle, 1,025,212 sheep, and 200,000 swine.

The first attempt to obtain a systematical statistical census of the number of horses in European Russia was successfully commenced in the year 1882. It would appear from the results obtained by this Commission that the number of horses in 58 governments of the Empire equaled 21,203,907 head, or an average of 25.5 horses to every 100 of the population. From this census it would therefore appear that the United States is the only nation in which the percentage of horses to population bears a proportionate relation to Russia.

*Horses per 100 of population.*

Countries.	Per cent.	Countries.	Per cent.
Russia.....	25. 5	Great Britain .....	9
United States .....	24. 3	Austria-Hungary.....	9
Italy and Portugal.....	2	Sweden.....	10
Spain .....	4	Roumania.....	12
Germany .....	7. 4	Denmark .....	17. 6
France.....	8	.....	.....

In determining this census, the Commission proceeded to subdivide the Empire, as it were, into fifteen groups or sections, in their desire to obtain reliable data from an economical domestic, as also from an industrial, point of view.

The grouping was as follows :

No.	Group.	Governments.
1	Lake district .....	St. Petersburg, Olonetz, Novgorod, and Pskoff.
2	Baltic district .....	Baltic provinces, three governments.
3	Livonia district .....	Vilna, Kovno, and Grodno.
4	Prevastland district .....	Ten governments of Poland.
5	White Russia district .....	Vitebsk, Minsk, Mohileff, Smolensk, and Tchernigoff.
6	Southwest district .....	Kieff, Podolia, and Volhynia.
7	Little Russia district .....	Poltava and Kharkoff.
8	New Russia .....	Kherson, Bessarabia, Ekaterinoslaff, and Taurida.
9	Central .....	Voronej, Tamboff, Orel, Saratoff, and Koursk.
10	Outer Central .....	Reazani, Toula, and Kalouga.
11	Manufacturing or industrial district .....	Moscow, Tru, and Vladimir.
12	Outer industrial district .....	Vologda, Yaroslaff, and Kostroma.
13	Volga route .....	Nijninogorod, Kazan, Timbersk, and Pensa.
14	Ural district .....	Viatka, Oufa, and Perm.
15	Southeast steppes .....	Samara, Orenbourg, and Astrachan.

These results, obtained by the Commission in its inquiries, are compiled and tabulated under the following headings :

No.	Group.	Number of gov- ernments.	Total number of horses.	Horses capable of labor.	Number of horses per 100 inhabi- tants.	Percentage of horses—property of peasants.
1	Lake district .....	4	695,837	590,861	17.7	90.2
2	Baltic district .....	3	427,484	345,291	19.0	71.4
3	Livonia district .....	3	721,882	539,535	20.4	68.6
4	Prevastland district .....	10	1,097,118	832,331	16.2	73.1
5	White Russia district .....	5	1,971,241	1,520,964	30.3	85.6
6	Southwest district .....	3	1,596,640	1,249,394	24.5	74.8
7	Little Russia .....	2	664,235	473,448	15.1	81.8
8	New Russia .....	4	1,490,649	1,076,876	28.1	74.8
9	Central .....	5	3,067,965	2,176,608	28.5	90.6
10	Outer Central .....	3	1,099,990	790,493	27.0	?
11	Industrial .....	3	818,946	702,495	15.5	92.7
12	Industrial outer .....	3	677,269	541,273	19.7	94.5
13	Volga route .....	4	1,541,514	1,202,711	25.2	?
14	Ural .....	3	2,060,069	1,544,047	38.4	97.5
15	Southeast steppes .....	3	1,726,816	1,298,369	55.0	93.1

From this table it can be seen that the greater or lesser proportion of horses in the various groups is determined altogether by the occupation of their owners and by the proportion of pasturage at disposal. Thus the proportion of horses to class of population was as follows: Peasant land-owners 89.9; per cent.; as compared to landlords 11.7 per cent., and in towns and cities 2.4 per cent. For every 100 desiatines (270 acres) of pasture land of peasants' holding the proportion of horses at their disposal was 25, as compared with 9 of land-owners' and others' holdings. In proportion to the area of land under cultivation it appeared that the peasant proprietor maintained 14 horses, as compared against landlords and others 2. From these statistics it would appear (from the conclusive data obtained by the Commission in 1883-'84) that there was an increase of 23 per cent. in the number of horses in European Russia since the statistics of 1876 and 1877 were published.

From returns collected in 1883-'84, and just published, it appears that the number of fully developed horses—foals excluded—in the various

governments and districts of Circassia numbered 857,814 head, distributed as shown in the following table :

Governments and districts.	Number of horses.			
	Village natives.	Landlords.	Towns.	Total.
<b>NORTH CIRCASSIA.</b>				
Stavropol government.....	153,473	7,620	2,246	163,339
Kuban district .....	196,184	49,665	17,604	263,453
Terak district .....	118,091	20,075	12,660	150,826
Total .....	467,748	77,360	32,510	577,618
<b>SOUTH CIRCASSIA.</b>				
Tiflis government .....	29,568	6,584	4,788	40,940
Koutais government .....	46,624	8,082	1,253	55,959
Elisavetpolsk government.....	39,312	6,147	1,798	47,257
Erivan government.....	25,591	1,663	1,236	28,490
Baku government .....	60,582	3,454	2,710	66,746
Dagestan district.....	32,416	1,631	963	35,010
Kars district .....	14,101	155	545	14,801
Black Sea district .....	1,770	193	730	2,693
Katal.....	5,488	665	178	6,331
Total .....	255,402	28,574	14,220	298,196

From these returns it would appear that, taking both North and South Circassia into consideration, there are about 135 horses per 1,000 inhabitants. Otherwise the ratio is, for North Circassia, 24.5 horses per 100, and in South Circassia 7.4 horses per 100 of population, or, in comparison with European Russia, about 24 times less. The census of 1883 (in Circassia) has, however, shown that the number of horses in North Circassia has increased from 224,000 head in 1871 to almost 587,000 at the present time, whilst in South Circassia the proportion has decreased  $2\frac{1}{2}$  times during the same time, i. e., from 700,000 to 300,000 head.

From statistics published in 1885 it would appear that in the various governments of European Russia and in Circassia other domestic animals—cattle, sheep, and swine—were distributed as follows (in the cattle list calves were excluded):

Governments.	Cattle.	Sheep.		Swine.
		Common.	Fine.	
EUROPEAN RUSSIA.				
Archangel .....	105,000	129,000	.....	1,000
Astrachan .....	567,000	1,615,000	178,000	33,000
Bessarabia.....	523,000	1,804,000	6,000	143,000
Vilna .....	303,000	272,000	1,000	239,000
Vitebsk.....	420,000	268,000	.....	211,000
Vladimir.....	322,000	322,000	.....	17,000
Vologda .....	515,000	395,000	131,000	52,000
Volhynia .....	641,000	577,000	303,000	467,000
Voronej.....	505,000	1,162,000	.....	280,000
Viatska .....	1,244,000	1,407,000	102,000	45,000
Grodno .....	465,000	522,000	430,000	335,000
Don district .....	1,826,000	2,855,000	1,943,000	.....
Ekaterinslaff .....	748,000	784,000	9,000	266,000
Kazan .....	410,000	1,080,000	19,000	197,000
Kalouga.....	294,000	307,000	19,000	161,000
Kieff .....	549,000	838,000	450,000	382,000
Kovno.....	569,000	418,000	1,000	428,000
Kostroma.....	492,000	727,000	.....	16,000



Governments.	Cattle.	Sheep.		Swine.
		Common.	Fine.	
EUROPEAN RUSSIA—continued.				
Courland .....	272,000	495,000	16,000	157,000
Koursk .....	364,000	955,000	66,000	408,000
Livonia .....	402,000	829,000	83,000	179,000
Minsk .....	529,000	468,000	64,000	401,000
Mohileff .....	369,000	354,000	6,000	321,000
Moscow .....	232,000	210,000	1,000	24,000
Nijnigorod .....	239,000	445,000	2,000	73,000
Novgorod .....	392,000	220,000		50,000
Olonets .....	138,000	88,000		7,000
Orenbourg .....	544,000	996,000	4,000	45,000
Orel .....	250,000	951,000	28,000	348,000
Pensa .....	248,000	777,000	135,000	197,000
Perm .....	929,000	1,162,000		271,000
Podolia .....	617,000	876,000	57,000	307,000
Poltava .....	882,000	1,300,000	520,000	485,000
Pskoff .....	345,000	193,000		102,000
Riazan .....	262,000	837,000	3,000	123,000
Samara .....	611,000	1,496,000	75,000	216,000
St. Petersburg .....	103,000	78,000		13,000
Saratoff .....	522,000	864,000	516,000	176,000
Simbeersk .....	320,000	703,000	50,000	98,000
Smolensk .....	349,000	401,000		102,000
Taurida .....	486,000	995,000	2,892,000	118,000
Tamboff .....	390,000	1,404,000	192,000	310,000
Tver .....	578,000	870,000		21,000
Toula .....	204,000	770,000	7,000	91,000
Oufa .....	438,000	936,000		126,000
Kharkoff .....	466,000	696,000	437,000	336,000
Kherson .....	805,000	1,024,000	1,524,000	305,000
Tchernigoff .....	493,000	877,000	36,000	419,000
Esthonia .....	191,000	142,000	54,000	47,000
Yarosloff .....	263,000	226,000		4,000
Total .....	23,841,000	37,217,000	10,310,000	9,153,000
CIRCASSIA.				
South Circassia.				
Stavropol .....	749,000	1,760,000	435,000	169,000
Koutau .....	1,287,000	1,623,000	1,282,000	299,000
Terak .....	591,000	497,000	66,000	61,000
North Circassia.				
Tiflis .....	300,000	1,500,000	9,000	
Artven .....	49,000	17,000		
Koutai .....	150,000	127,000	2,000	
Soukoom .....	15,000	28,000		4,000
Batoum .....	7,000	148,000		
Elisavetpolsk .....	400,000	1,500,000	30,000	
Baku .....	227,000	1,000,000		
Erevan .....	250,000	500,000		
Kars .....	176,000	270,000		
Katal .....	62,000	83,000		
Black Sea .....	13,000	3,000		2,000
Total in Circassia .....	4,376,000	9,056,000	1,824,000	535,000

Thus far I have endeavored to compile available statistics of Russia's wealth in domestic animals, in the hope that such data in the hands of competent persons may be of service in estimating the probable wealth of supply for the demands of the leather industries of the Empire, which, when taken in connection with the exports and imports and the information at disposal regarding the manufacturing interests of Russia, will no doubt allow inferences to be drawn that may be serviceable, in the absence of actual statistical data, regarding the extent of the leather industries in the Russian Empire.

## IMPORTS AND EXPORTS OF ANIMALS AND HIDES.

Until 1871 the export of domestic animals steadily increased; in that year the fear of the Siberian pest caused neighboring countries to impose such restrictions that the export was seriously obstructed.

I have been able to compile the following table, which treats of the exports of domestic animals of all kinds, large and small (horses are placed in a separate column), from Russia during the past ten years, 1875-'84:

Year.	Domestic animals.	Value.	Horses.	Value.
		<i>Rubles.</i>		<i>Rubles.</i>
1875.....	757,213	9,675,000	34,423	2,134,000
1876.....	822,494	11,806,000	43,423	2,901,000
1877.....	1,057,562	15,737,000	401	39,000
1878.....	1,422,449	16,803,000	15,915	1,178,000
1879.....	1,126,476	14,611,000	33,134	2,332,000
1880.....	1,145,434	13,534,000	22,636	1,591,000
1881.....	680,600	10,088,000	23,882	1,695,000
1882.....	1,052,117	15,059,000	40,647	2,790,000
1883.....	838,000	10,321,000	45,000	3,609,000
1884.....	701,000	8,671,000	40,000	3,412,000
1885 (September 1-13).....	288,201	4,718,000	22,400	2,063,000

The following table, compiled from official sources, treats of the exports of hides and leathers from Russia during the past ten years, 1875-'84:

Year.	Poods.	Value.	Year.	Poods.	Value.
		<i>Rubles.</i>			<i>Rubles.</i>
1875.....	303,253	3,674,000	1881.....	424,998	4,371,000
1876.....	259,956	3,320,000	1882.....	437,772	4,740,000
1877.....	342,989	3,583,000	1883.....	486,200	5,577,000
1878.....	243,423	3,183,000	1884.....	385,700	4,527,000
1879.....	268,110	4,020,000	1885 (September 1-13).....	200,000	2,279,000
1880.....	460,974	5,072,000			

NOTE.—The pood equals 36 pounds.

Of the imports of raw hides and manufactured leathers into Russia during the past ten years, 1875-'84, the following table has been compiled from the latest official statements:

Years.	Raw and prepared hides.		Manufactured leathers.	
	Poods.	Value.	Poods.	Value.
		<i>Rubles.</i>		<i>Rubles.</i>
1875.....	430,926	8,344,000	116,258	3,600,000
1876.....	328,474	1,996,000	132,601	3,150,000
1877.....	233,160	1,245,000	67,746	1,900,000
1878.....	581,683	3,183,000	115,560	3,177,000
1879.....	804,524	5,577,000	146,504	4,293,000
1880.....	532,282	2,871,000	143,302	4,085,000
1881.....	360,677	1,958,000	112,837	3,342,000
1882.....	392,100	3,123,000	125,637	408,200
1883.....	284,000	2,378,000	130,400	3,708,000
1884.....	265,000	2,308,000	141,500	4,003,000
1885 (September 1-13).....	170,000	.....	7,400	.....

## TANNING INTEREST.

Having considered the source of supply, the imports and the exports, it will be advisable to accept statistics published by Orloff in 1881, which give certain data regarding the existence of tanneries and their distribution in the Empire of Russia in 1879. It would appear that in this list tanneries whose annual output was less in value than 1,000 rubles were excluded; such an arrangement naturally excluded the operations of the Kustar. It would also appear that these tanneries, as a whole, were engaged in the output of not only tanned and dressed hides, but also occupied in the preparation of chamois, kid, morocco, turkey, and various other leathers of fine and coarse grades.

Other statistics published in 1881 regarding the various works and manufactories of the Empire in 1882 I have deemed advisable to compile, and place in the same table for the sake of general information.

A summary of the tables submitted shows that there were :

Countries.	Tanneries.	Workmen.	No. hides.	Value.
				<i>Rubles.</i>
European Russia .....	3,320	20,130	7,000,000	41,989,000
Poland .....	334	2,368	.....	6,072,400
Finland .....	29	166	.....	412,000
<b>Total .....</b>	<b>3,683</b>	<b>22,664</b>		<b>48,473,400</b>

The distribution of these manufacturing interests and the proportion of tanneries in the various governments of Russia I have compiled in the following table.

*Manufactories, &c., in the governments of European Russia in 1882.*

Governments.	Number of works and manufac- tories.	Annual value of out- put.	Number of work- men.	Num- ber of tan- neries.	Annual value of output.	Num- ber of work- men.
		<i>Rubles.</i>			<i>Rubles.</i>	
Archangel .....	2,200	2,360,000	4,730	101	48,300	118
Astrachan .....	390	7,210,000	34,169	26	219,500	101
Bessarabia .....	732	929,000	2,800	15	113,100	49
Vilna .....	192	3,483,000	1,907	25	256,500	209
Vitebak .....	576	1,738,000	2,230	116	1,134,700	427
Vladimir .....	1,692	91,766,000	90,501	34	375,200	260
Vologda .....	240	3,011,000	2,314	20	228,500	130
Volhynia .....	840	12,931,000	11,330	182	213,000	559
Varonej .....	1,638	19,591,000	9,087	182	449,000	441
Viatka .....	452	20,792,000	17,878	98	4,363,400	1,739
Grodno .....	842	9,241,000	10,177	87	90,000	192
Ekaterinoslav .....	753	22,450,000	16,126	19	349,700	84
Kazan .....	293	12,818,000	7,527	73	1,412,700	574
Kalouga .....	874	10,400,000	16,283	44	833,400	243
Kieff .....	594	73,308,000	39,403	45	1,217,000	492
Kovno .....	493	4,009,000	2,447	89	115,000	101
Kostroma .....	866	27,449,000	28,641	49	477,800	394
Courland .....	390	10,652,000	3,127	7	106,300	73
Kounsk .....	699	19,041,000	13,535	70	707,600	377
Livonia .....	758	36,078,000	18,433	3	290,000	88
Minsk .....	592	7,768,000	2,901	39	10,400	56
Mohileff .....	516	3,363,000	3,097	60	193,200	112
Moscow .....	1,604	173,493,000	157,718	60	4,294,400	1,997
Odessa .....				5	838,800	173
Nijnigorod .....	476	17,278,000	17,326	122	861,000	553
Novgorod .....	596	3,200,000	4,907	32	91,400	135
Olonets .....	345	2,956,000	2,805	156	82,100	224
Orenbourg .....	587	5,494,000	5,473	154	1,030,000	651
Orel .....	9,478	19,831,000	36,869	59	1,551,200	635
Penza .....	1,950	7,911,000	9,272	22	175,100	141

Manufactories, &c., in the governments of European Russia in 1882—Continued.

Governments.	Number of works and manufac- tories.	Annual value of out- put.	Number of work- men.	Num- ber of tan- neries.	Annual value of output.	Num- ber of work- men.
		<i>Rubles.</i>			<i>Rubles.</i>	
Perm .....	1, 448	50, 486, 000	85, 007	369	2, 123, 000	1, 194
Podolia .....	2, 279	26, 923, 000	23, 069	52	74, 100	148
Poltava .....	864	8, 893, 000	6, 198	7	277, 300	78
Pskov .....	806	11, 231, 000	3, 228	62	426, 600	363
Riazan .....	861	12, 929, 000	14, 787	41	604, 000	318
Samara .....	594	7, 671, 000	5, 306	75	277, 300	258
St. Petersburg .....	772	134, 226	74, 287	73	8, 517, 500	1, 798
Saratoff .....	6, 500	20, 973, 000	17, 509	170	642, 100	450
Simbeersk .....	2, 756	10, 615, 000	15, 026	25	179, 700	84
Smolensk .....	976	3, 288, 000	5, 107	41	643, 500	308
Taurida .....	720	5, 248, 000	5, 700	14	52, 300	36
Tamboff .....	706	24, 750, 000	11, 518	63	382, 200	250
Tver .....	716	23, 173, 000	23, 172	85	3, 340, 800	1, 060
Toula .....	1, 133	16, 126, 000	13, 802	20	792, 000	564
Onfa .....	210	5, 706, 000	10, 208	44	350, 400	177
Kharkoff .....	737	30, 903, 000	20, 930	19	44, 800	60
Kherson .....	1, 075	35, 192, 000	10, 320	12	189, 400	67
Tchernigoff .....	824	11, 183, 000	13, 405	86	323, 500	435
Esthonia .....	181	34, 491, 000	7, 312	.....	.....	.....
Yarosloff .....	939	21, 455, 000	15, 965	30	518, 300	353
Total .....	56, 905	1, 126, 033, 000	954, 971	3, 320	41, 989, 000	20, 130
POLAND.						
Warsaw .....	1, 610	31, 444, 000	21, 345	40	4, 472, 000	1, 185
Kalich .....	1, 924	8, 853, 000	8, 352	35	438, 200	278
Kielitz .....	342	7, 714, 000	.....	8	53, 900	51
Lomsha .....	906	3, 624, 000	2, 248	2	34, 200	5
Loublin .....	795	7, 969, 000	4, 789	26	153, 300	110
Petrokoff .....	12, 361	79, 969, 000	57, 680	106	302, 800	235
Plotsk .....	283	2, 718, 000	2, 381	16	24, 200	40
Radom .....	.....	.....	.....	38	506, 900	317
Lonvalk .....	269	1, 034, 000	946	22	38, 400	62
Liedlitz .....	537	4, 044, 000	2, 365	41	4, 700	87
Total .....	19, 027	147, 309, 000	103, 106	324	6, 072, 400	2, 368
Duchy of Finland .....	.....	.....	.....	29	412, 000	106

From the table submitted it will be seen that in European Russia, exclusive of Poland, there were in 1882 56,905 works and manufactories, the value of whose output was estimated at 1,126,033,000 rubles. The proportion of the more important establishments, as manufacturing industries, to the whole was as follows:

Manufactories.	Works.	Value output in rubles.	Manufactories.	Works.	Value output in rubles.
	<i>Per cent.</i>	<i>Per cent.</i>		<i>Per cent.</i>	<i>Per cent.</i>
Cloth .....	1. 0	3. 7	Cotton spinning .....	0. 1	0. 1
Leather .....	7. 2	3. 1	Cotton weaving .....	1. 3	15. 6
Silk .....	0. 2	0. 6	Beer and mead .....	2. 3	2. 0
Tobacco .....	0. 4	3. 2	Distilleries .....	4. 0	17. 4
Sugar .....	0. 4	12. 5	Metallurgical industries.	2. 8	7. 6
Paper .....	0. 2	1. 2			

POPULATION.

In my desire to allow conclusions to be drawn from the data submitted by me, I deem it advisable to conclude such statistics with the following table of the population of the Russian Empire, which I have compiled from the latest available statistics upon this subject :

*Population of the Russian Empire.*

	Total population.	Males.	In towns (both sexes).	In country (both sexes).	Total number of locations.
European Russia.....	77,617,697	38,483,049	9,206,609	68,411,028	555,278
Poland .....	7,083,475	.....	.....	.....	.....
North Circassia .....	2,361,475	.....	196,315	2,165,160	8,319
South Circassia .....	4,173,378	.....	890,665	3,282,713	9,713
Total.....	6,534,853	.....	586,980	5,947,873	.....
Caspian district.....	260,000	.....	4,435	255,565	50
Siberia .....	4,093,535	.....	829,253	3,264,282	.....
Kirgese district .....	1,852,770	.....	82,324	1,770,446	.....
Tarkestan .....	3,177,584	.....	373,382	2,804,202	.....
Finland .....	2,060,782	.....	173,401	1,887,381	.....
Total of Empire.....	102,681,696	.....	.....	.....	.....

From the data submitted it will be possible for those interested to draw their own conclusions. However, at a glance it appears, as regards the governments of European Russia, that the average number of workmen engaged at works or manufactories was 16.7 hands; also that the average annual output from such manufacturing establishments was 19,788 rubles. It would also appear that the produce from such industrial sources (classed under seventy-two industries, as shown in the table appended) was equal to 14.26 rubles, say \$7.13, per head of population; also that the proportion of population, compared to the whole, engaged in such industrial undertakings was but 1.2 per cent. of the inhabitants of European Russia.

In the matter of leather, it would appear that each manufacturing tannery in European Russia, apart from the demands of kindred trades dependent upon this industry, had the care of 23,379 souls, or a proportion equal to 1,447 head of the population to each workman employed, the average number of hands being 16.15 per tannery. The average imports of manufactured leathers during the past ten years, 1875-'84, equaled 123,243 poods—4,436,748 pounds annually, or an annual average of about 0.915 of an ounce per head of population in European Russia.

I repeat, in the face of these evident statistical misrepresentations, that the annual home demand upon the industries engaged in the preparation of leather in European Russia, the Baltic provinces, Finland, Circassia, and Siberia cannot be justifiably accepted at less than from one-quarter to one-fifth part of a hide per soul. (This estimate necessarily includes the demands of trades kindred to the leather industry, whose annual production is estimated at, say, 130,000,000 of rubles.) Under such circumstances the annual demands for the needs of the Empire will approach a manufacturing and industrial output of from 20,000,000 to 25,000,000 of hides, as will the value more nearly approach from 80,000,000 to 100,000,000 of rubles.

The number of domestic artisans, exclusive of children, who are also of service, in the home or domestic industries of the Empire of Russia is proven to exceed 3,000,000, and it is from this domestic source that Russia's needs are met. Travelers and excursionists fall into the grave error of accepting local customs for national ones, and assuredly it is an assumption to assert that because tanneries are not seen such do not exist. I have yet to see that proportion of the multitude who are badly shod, and very little is wasted amongst the peasantry in the

interior of this empire. There is a demand for specialties amongst trades and classes, and this demand is met by the imports; otherwise, Russia is self-reliant. I am of the opinion, with E. N. Andreyeff, that the home industry of the "kustar" in Russia's realm employs at present seven and a half millions of souls, and that the output of the home industries of the Russian Empire is not less than one and a half milliards of rubles annually, \$7,500,000,000.

*Works and manufactories in European Russia.*

Preparations.	Works and factories.	Workmen.	Annual value of output.
	Number.	Number.	Rubles.
Dairies (cheese, &c.)	464	1,064	926,939,000
Wool washing, yarns, and wool sorting	159	6,626	7,859,766,000
Wool weaving, felts, and lamb's-wool felts	72	1,124	1,089,070,000
Bristles and brushes	35	653	747,302,000
Cloth mills	24	3,460	2,856,380,000
Carpets	8	363	240,740,000
Woolen wares	130	13,786	12,477,769,000
Cloths	558	53,638	42,123,339,000
Furriers	1,204	4,814	2,577,477,000
Leather, tanneries	4,093	20,919	34,732,142,000
Harness and boots	52	219	217,363,000
Tallow melters	642	3,759	7,790,954,000
Soap and candles	788	4,610	14,054,346,000
Horn wares	17	522	120,711,000
Glue works	178	735	274,965,000
Bones	47	637	1,541,823,000
Fisheries	532	35,591	6,455,769,000
Wax	273	1,267	4,421,288,000
Silk and half-silk wares	139	7,803	6,905,227,000
Corks	9	1,795	1,689,000,000
Bast mats and bags	647	5,473	589,853,000
Tobacco	229	19,141	36,015,474,000
Chicory	10	206	516,250,000
Starch and molasses	364	3,939	2,188,872,000
Sugar	220	83,861	140,903,200,000
Saw-mills	416	11,416	16,125,445,000
Joiners, parquet, &c.	160	2,377	1,664,045,000
Paper	138	11,624	13,501,604,000
Wall paper	17	945	953,200,000
Rope	303	3,926	3,815,392,000
Cotton wadding, &c.	66	856	1,137,742,000
Flax and hemp	279	6,619	12,691,251,000
Cotton spinning and weaving	739	178,614	174,987,240,000
Flax spinning and linen	329	26,401	17,763,691,000
Cotton printing	66	21,060	32,129,180,000
Stockings and hosiery	81	477	374,287,000
Dye works	881	5,969	7,506,698,000
Flour mills	15,147	34,194	74,090,585,000
Macaroni	25	432	941,976,000
Biscuits	81	357	355,919,000
Butter, &c.	9,603	23,125	8,724,155,000
Malt	195	519	833,010,000
Beer and mead	1,803	9,623	22,571,006,000
Spirituous liquors	2,031	35,004	156,027,731,000
Distilleries	328	4,284	38,988,189,000
Vinegar	64	215	448,376,000
Tar and pitch	1,328	2,927	865,500,000
Potash	432	1,251	478,318,000
Bricks	5,249	35,809	10,314,760,000
Tiles, &c.	177	921	300,854,000
Potteries	1,781	3,474	462,626,000
China	47	7,833	4,020,664,000
Lime, alabaster, and cement	345	3,690	3,028,397,000
Salt	33	3,244	3,153,670,000
Coal	34	5,219	2,606,264,000
Foundries and iron mills	168	80,207	45,818,326,000
Cast-iron foundries	289	30,598	26,835,228,000
Steel	6	100	164,343,000
Iron and steel wares	1,130	6,008	6,764,014,000
Guns, &c.	13	5,523	2,979,290,000
Cannon and artillery	3	4,291	1,778,438,000
Brass and copper foundries	182	9,572	7,314,181,000
Bell-founders	31	299	1,135,618,000
Gold and platina industry	285	17,082	4,085,870,000
Sundry metallurgical industries	32	1,087	2,345,840,000
Agricultural and other machines	18	4,673	5,429,698,000



*Works and manufactories in European Russia—Continued.*

Preparations.	Works and factories.	Workmen.	Annual value of output.
	<i>Number.</i>	<i>Number.</i>	<i>Rubles.</i>
Mechanical works .....	110	10,602	9,760,079,000
Glass and crystal .....	179	15,666	7,865,191,000
Mirrors .....	5	807	600,000,000
Chemicals .....	210	5,393	6,591,022,000
Matches .....	265	6,201	2,032,896,090
Sundry works and factories .....	1,470	28,520	55,202,056,000
<b>Total .....</b>	<b>56,905</b>	<b>954,971</b>	<b>1,126,032,674,000</b>

JAMES V. R. SWANN,  
*Acting Consul-General.*

UNITED STATES CONSULATE-GENERAL,  
*St. Petersburg, November 17, 1885.*

Consul Joseph Rawicz, Warsaw.  
Consul George Scott, Odessa.  
Consular Agent Pet. Bomboldt, Riga.

**TARIFF.**

The following are the rates of duties paid in gold on imported hides, leather, boots, and shoes, viz: Hides, dried or salted, per 1 pood of 40 pounds pay 50 copecks; large leathers of ox, cow, sow, or horse pay per pood 5 rubles; small leathers, of little animals, pay 9 rubles per pood; all varnished leathers pay 6.60 rubles per pood; every kind of leather, shoes and boots, pay 60 copecks per pound.

The foregoing duties are payable in gold, and are assessed alike on the manufactures of all countries.

**WARSAW.****REPORT OF CONSUL RAWICZ.****LEATHER.**

The leather industry of this consular district is at present in a very flourishing state. There are at Warsaw six large and eight smaller tanneries; the value of produce of the former amounts annually to 6,000,000 rubles, and that of the latter to nearly 2,000,000 rubles.

The hides and skins used in these tanneries are of home production, and their prices at the tanneries are extremely varied. In the tanning of hides, skins, &c., the local manufacturers use lime and oaken bark, both materials being likewise of the home growth.

The total leather produce of Poland amounts to over 11,000,000 rubles a year, chiefly consumed by this country and Prussia.

The local manufacturers import from France and Germany the French varnished thin and thick leathers, the latter kind being known here under the name of "American leather." Besides these two kinds they import also all other kinds of leather used chiefly in the manufacturing of summer shoes and boots.

## AMERICAN LEATHER.

Till the year 1882 they imported from the United States to Warsaw without any objection the red sole leather, called here the hemlock leather, to the amount of about 2,000,000 rubles a year, but at present the importation of this leather has entirely ceased.

This red sole-leather distinguished itself by its durability and resistibility to the humidity. But owing to the extensive development of the local leather industry it is generally believed that all foreign competition will be next to impossible.

Among the manufacturers and merchants dealing in this line of business, only Mr. Bauerfeind, of Warsaw, was engaged in the importation of the American leather till 1882, but now he declines to act for American houses.

## BOOTS AND SHOES.

In comparison with all other larger cities of Europe, Warsaw is enjoying the most extensive sale of shoes and boots, supplying with its better sorts nearly the whole Empire of Russia, Siberia, and even the bordering provinces of China. Notwithstanding this enormous production of shoes and boots, the local manufacturers use only in their factories the common sewing-machines for sewing merely the upper and thin parts of shoes.

The styles, sizes, and shapes of boots and shoes usually conform to the tastes of those provinces of Russia to which articles made in this country are sent out. Generally the wide-nosed and high-heeled boots and shoes are manufactured and worn.

Till now, no boots or shoes of American manufacture were imported to this country, where the American competition would undoubtedly fail, owing to the reason that on the very place the shoe and leather industry is exceedingly developed.

## PRICES.

The current prices of the hides, dressed and undressed, as well as those of the boots and shoes manufactured in this country, are as follows:

Description.		Highest.	Lowest.
		Rubles.	Rubles.
Ox-hide .....	per piece..	18. 00	10. 00
Calf-hide .....	do.	1. 80	0. 75
Horse-hide .....	do.	5. 50	2. 50
Sheep-hide .....	do.	0. 90	0. 45
Ox-hide, dressed .....	do.	30. 00	15. 00
Calf-hide, dressed .....	do.	4. 00	1. 50
Horse-hide, dressed .....	do.	12. 00	6. 00
Varnished ox hide, dressed .....	do.	20. 00	12. 00
Calf-hide, dressed and varnished .....	do.	3. 00	1. 50
Varnished and dressed sheep-hide .....	do.	1. 80	1. 00
Long legged boots of Russian leather .....		12. 00	4. 00
Long-legged boots of Russian leather, varnished .....		18. 00	9. 00
Shoes .....		10. 00	1. 50

The above prices are paid in paper rubles. This report is based on the information given by respective manufacturers and merchants in a private way, as you are already aware that no official statistical offices exist in this country.

JOSEPH RAWICZ,  
Consul.

UNITED STATES CONSULATE,  
Warsaw, June 5, 1885.

## ODESSA.

## REPORT OF CONSUL SCOTT.

## LEATHER.

The large tanneries in Russia are at Moscow, Penza, and in the interior. There are some in this district, but they are decreasing rather than increasing in numbers, many not being able to stand before the competition of larger firms. The hides and skins are obtained from the Steppes, the Don, and the line of the Caucasus. There are no statistics of the product, but it is all used in domestic consumption. Where that which is manufactured in the interior is consumed I do not know.

Manufactured leather was imported in 1884 to the amount of 434,037 poods, and chiefly from England and France. Fifteen thousand and two pounds of ready-made boots and shoes were imported from Austria and France. No leather is imported from the United States, nor do I know how a trade could be begun.

## BOOTS AND SHOES.

There is nothing in South Russia that could rightly be called a manufactory of boots and shoes. There are shops where from one to eight men may be found working, doing all by hand. There are large manufactories in St. Petersburg, Moscow, and Warsaw. At the last place a great many thousand people are employed in the business. I have seen nothing in the line of machinery beyond a sewing-machine.

The shoes are chiefly elastic-sided, and very few laced boots are worn. The Russian instep is high and the foot generally short. Foreign boots, as a rule, have been useless. The Austrians, however, have begun to make boots suited to the Russian foot, and quite a large importation is the result. Some boots and shoes are imported from Austria and some from France, but none from the United States.

GEORGE SCOTT,  
Consul.

UNITED STATES CONSULATE,  
Odessa, July 29, 1885.

## RIGA.

## REPORT OF CONSULAR AGENT BOMBOLDT.

## LEATHER.

In the provinces of Livonia and Curonia there exist, besides several smaller tanneries, about 10 larger steam tanneries, producing about \$400,000 worth of neat, calf, horse and foal, sheep, and goat skins. About half the quantity of the production consists of domestic hides and the balance of South American. Dry domestic neat hides cost about 19.20 cents per pound at the tanneries.

The materials used in tanning are chiefly willow and grain bark, produced in this country, also French chestnut extract, American hemlock extract (Miller's lion brand), and Australian mimosa bark.

The output of the leather is consumed in the places of production and in the interior of Russia. The import of hemlock and Valdivia sole leather, mostly from Hamburg, amounts to about \$100,000, and from the United States direct about \$30,000 yearly.

AMERICAN LEATHER.

Small quantities of sole leather are also imported from England, but the American leather, suiting the market better, has put the English leather in the background.

The hemlock leather is mostly preferred in these provinces. The tanning and finishing of the American leather are considered good, but in many cases the hides are too much “branded,” which as much as possible ought to be avoided.

The best means of enlargement of trade in American leather would of course be cheaper prices.

The principal importer in this place of American leather is Mr. Louis Zietermann.

BOOTS AND SHOES.

In these provinces there are no shoe factories, with machinery, carried on; all work is done by hand. With exception of some few ladies' fancy shoes from Paris or Vienna, all boots and shoes worn here are of home manufacture. The high duty would prevent the import to any extent of this article.

PET. BOMBOLDT,  
*Consular Agent.*

UNITED STATES CONSULAR AGENCY,  
*Riga, June 6, 1835.*

SPAIN.

Consul Ernest L. Oppenheim, Cadiz.  
Consul Frederick H. Scheuch, Barcelona.  
Consul Clodomiro Perez, Santander.  
Consular Agent A. Urraza, Bilbao.

*Tariff.*

Articles.	Treaty nations.	Not treaty nations.
Raw hides and skins * .....100 kilograms..	\$1 95	\$2 50
Patent, tanned, dressed, calf-skin leather † .....1 kilogram..	58	96
Other tanned or dressed leather, including sole ‡ .....do....	36	38
Machinery belting, and straps .....do....	96	96
Furs and skins for clothing, &c., dressed or natural .....do....	16	12
The same, in manufactured articles .....do....	1 59	1 74
Leather or skin gloves .....do....	3 47	6 17
Shoes .....do....	1 07	1 60
Articles for saddlery and harness-makers' use § .....do....	39	67
Other skins or leather not mentioned.....do....	87	96

\* By article 26 of the budget law of 1879-'80, raw hides and skins imported direct from foreign countries not in Europe pay 3 pesetas, 49 cents, less duty on 100 kilograms than marked in the foregoing tariff.  
† While the actual treaties with Belgium and France are in force, imports of these articles from favored nations pay only 2.50 pesetas, 40 cents.  
‡ In the same cases mentioned in the preceding note, these duties are 1.85 pesetas, 36 cents, per kilogram.  
§ By articles for saddlers' use or harness-makers' are understood saddles, harness, coach fixings, bags, satchels, trunks, hat-boxes, and similar goods, made in whole or part of leather.

In regard to these duties Consul Oppenheim writes :

These duties are clearly too high to allow of a great development of the import trade, save in the articles of raw hides, of which the country absolutely needs a certain quantity. The duty on leather is prohibitive, and, with still greater force than in the case of leather, the Spanish customs dues put the introduction of our boots and shoes into this market out of the question. The class of goods which is our special forte for the export trade consists, as I take it, chiefly of coarse, heavy, machine-made shoes, just the article upon which a specific duty by weight would be most onerous.

## ANDALUSIA.

### REPORT OF CONSUL OPPENHEIM.

#### THE TANNING INDUSTRY.

The tanning interest in this district is mainly confined to the making of sole leather for home use ; calf-skins are tanned only in very small quantities, and there are some establishments making morocco and kid. The value of the total product in the province of Cadiz is estimated at 1,060,000 pesetas, and that for Seville at 530,000 pesetas, of which 90 per cent. is sole leather. The establishments as a rule are small. The province of Cadiz has seventeen in all, located as follows : Three in Cadiz, three in Tarifa, three in Arcos, and eight in Ubrique. The province of Seville has nine in the city of the same name, besides a few in the country.

The ox-hides tanned are either of Spanish origin or are salted hides imported from Buenos Ayres, in the proportion of about one-third of the latter to two-thirds of the home product. The price of Buenos Ayres stock here during the last few years has ranged from 1.20 to 1.50 pesetas\* per pound. Green hides at the Cadiz and Seville abattoirs sell at 0.87½ peseta a kilogram, equal to about 0.40 peseta a pound. There are but very few calves slaughtered ; hence a market price for green calf-skins can hardly be given. Goat-skins for making morocco are imported from Tangiers, Casablanca, and Mogador, and there is also a moderate home supply ; prices range from 0.75 to 1 peseta per pound.

The yield of kid-skins is estimated at 20,000 per annum for Cadiz and at 30,000 for Seville ; only a small part of this stock is worked up here, most of it being shipped in the raw state to Barcelona and adjacent points. Kid-skins are a very speculative article ; they are sold by the piece, and prices have lately varied between 1.25 and 2 pesetas.

#### TANNING MATERIALS.

The tanning material used for making sole leather is the inner bark of the cork oak, said to be extremely rich in tannin ; pine bark is used for morocco, and kid leather is treated in the usual way, with alum and eggs.

#### QUALITY AND PRICES.

The sole leather tanned here from home-raised hides is not quite as fine as the American article, and upon cutting shows a rather light color ; the leather made of Buenos Ayres stock, however, is firmer and darker inside, and, as far as I can judge, would fairly stand comparison with our good brands. The price of good sole leather is now 1.75 pesetas

\* The peseta is worth \$0.193.

per pound, and calf-skins, home tanned, are selling at from 3 to 3.75 pesetas per pound. Of the latter article this district furnishes but a small part of its consumption; a large supply of the common kind comes from Galicia and the northern provinces generally; the finer stock for high-priced boots and shoes is brought from France.

There are to my knowledge no parties regularly engaged in the importation of foreign leather; traveling agents from Madrid and Paris take orders for small parcels directly from the shoemakers. Leather belts for machinery are imported in moderate quantities, chiefly from England.

The value of the leather and belting imports of this consular district, consisting of the provinces of Cadiz, Seville, and Huelva, for the years 1882 and 1883, was as follows:

	Pesetas.
1882:	
Leather .....	155,140
Belts .....	35,770
1883:	
Leather .....	163,380
Belts .....	71,360

The value of leather exports from this district is insignificant, the figures published for the years 1882 and 1883 being, respectively, 76,504 and 30,116 pesetas.

#### AMERICAN LEATHER.

American sole leather is not known in this district, nor is it likely to obtain a foothold here as long as the duty upon it remains at its present figure of 2 pesetas per kilogram. Our machine belting, however, considering its excellence and high finish, ought to be able to compete with the English and French article; the duty upon it is only 1 peseta per kilogram, and there is no discrimination against us.

#### BOOTS AND SHOES.

Manufactories of boots and shoes, properly so called, do not exist in this district; hence machinery has not come into general use. Sewing machines (both of American and German manufacture), however, form part of the plant of every well-equipped workshop; there are also in use, by the better class of ladies' shoemakers, a few heel-making machines of French origin.

The shoemaking industry in this district seems to balance the home demand very nicely. No foreign shoes are imported, and the value of the exports for the years 1882 and 1883 is only 15,585 and 8,955 pesetas, respectively.

The goods turned out have the appearance of French stock. Both ladies' and gentlemen's foot-gear is made to follow the Paris fashions, and, as walking is not indulged in to any great extent by the well-to-do classes, elegance is prized more than comfort.

A gentleman wearing comfortable, broad-soled shoes here is presumably an Englishman—in any case a foreigner. Children's shoes of the more costly kind are made on the same lines. Laboring men in the cities also wear a comparatively fine shoe when off working hours. Whilst at work they use the so-called "alpargatas," shoes of which the upper is of coarse duck and the sole of plaited aloe fiber (pita), and it appears very well adapted to a warm climate and indoor occupations.

The country laborers, and country people generally, wear stout laced shoes of coarse calf-skin, with heavy soles and leather latches.

It is estimated that the custom-made product is about 25 per cent.



of the whole, leaving 75 per cent. for the ready-made stock. Prices range as follows :

Articles.	Custom-made.	Ready-made.
	<i>Pesetas.</i>	<i>Pesetas.</i>
Gentlemen's shoes (low or gaiters) .....	15 to 30	10 to 20
Ladies' shoes (low or gaiters) .....	12. 50 to 25	5 to 12. 50
Children's shoes:		
Six to twelve years old .....	7. 50 to 12. 50	5 to 10
Two to six years old .....	5 to 10	2. 50 to 7. 50
Alpargatas .....		. 75 to 1

## IMPORTS AND EXPORTS.

From our official statistics for the quarter ending December 31, 1884, I find that during that quarter we exported to all countries boots and shoes to the number of 142,229 pairs, of a value of \$167,442; during same quarter of 1883, we exported 129,509 pairs, of a value of \$155,344, giving an average value for the two quarters of somewhat less than \$1.19 per pair. The average weight of a pair of heavy shoes or boots will not fall below 1 kilogram, upon which the Spanish duty would be 8.75 pesetas (\$1.69), equivalent to about 142 per cent. ad valorem.

*Statistics of imports, 1882-'83.*

Article.	Whence imported.	Quantity.	Value.
1882.		<i>Kilograms.</i>	<i>Pesetas.</i>
Japanned leather and tanned calf-skins.	Germany .....	92, 688	
	France .....	69, 021	
	All other countries .....	734	
	Total .....	162, 443	2, 436, 645
All other tanned leather, including sole leather.	France .....	109, 094	
	Germany .....	14, 209	
	All other countries .....	11, 839	
	Total .....	135, 142	1, 351, 420
Machine belting .....	France .....	15, 018	
	England .....	11, 704	
	Germany .....	9, 101	
	All other countries .....	3, 867	
	Total .....	39, 690	396, 900
Boots and shoes .....	All from France .....	526	10, 500
1883.			
Japanned leather and tanned calf-skins.	Germany .....	107, 184	
	France .....	76, 869	
	All other countries .....	1, 148	
	Total .....	185, 201	3, 833, 626
All other tanned leather, including sole leather.	France .....	93, 784	
	Germany .....	15, 090	
	Belgium .....	10, 697	
	All other countries .....	3, 785	
	Total .....	123, 356	1, 480, 298
Machine belting .....	England .....	25, 870	
	France .....	12, 535	
	Germany .....	7, 897	
	All other countries .....	3, 234	
	Total .....	49, 536	496, 300
Boots and shoes .....	France .....	1, 783	
	All other countries .....	92	
	Total .....	1, 875	37, 000

The aggregate of these imports, viz, 4, 195,485 pesetas for 1882 and 5,346,750 pesetas for 1883, bear to the total imports of these years the proportion of 0.51 per cent. and 0.60 per cent., respectively. This, when considering the comparative backwardness of Spanish industry, certainly impresses one as a rather low percentage for such an important class of commodities, and its lowness may fairly be attributed to the high duties.

The export trade of Spain in leather and its manufactures is of some importance. Upon analyzing the business, however, it will be found that it chiefly consists in the supplying of colonies, where the mother country has a practical monopoly. Of this trade Barcelona seems to have the lion's share.

The following exports show the figures for 1882 and 1883 as officially given:

*Exports in 1882.*

Article.	Exported to—	Quantity.	Value
		<i>Kilos.</i>	<i>Pesetas.</i>
Leather .....	Cuba and Porto Rico .....	184,347	1,227,953
	All other countries .....	127,331	1,100,730
		311,678	3,328,683
Shoes .....	Cuba and Porto Rico .....	701,210	10,518,150
	All other countries .....	15,631	234,465
		716,841	10,752,615

The shipment from Barcelona to Cuba and Porto Rico, during 1882, were: Leather, kilograms, 181,030, of a value of 1,197,235 pesetas; shoes, kilograms, 669,541, of a value of 10,043,115 pesetas.

*Exports in 1883.*

Article.	Exported to—	Quantity.	Value.
		<i>Kilos.</i>	<i>Pesetas.</i>
Leather .....	Cuba and Porto Rico .....	160,368	1,049,467
	All other countries .....	85,846	570,537
		246,214	1,620,904
Shoes .....	Cuba and Porto Rico .....	639,488	9,592,320
	All other countries .....	23,447	351,705
		662,935	9,944,025

The shipments from Barcelona to Cuba and Porto Rico, during 1883, were: Leather, 152,674 kilograms, of a value of 982,142 pesetas; shoes, 615,989 kilograms, of a value of 9,239,835 pesetas.

From the above data it appears that whilst the Peninsula does not afford a market for our leather goods—save, possibly, for some machine belting—our boot and shoe manufactures, if placed by treaty stipulations on an equality with the Peninsula product, might find sale in the Spanish Antilles.

ERNEST L. OPPENHEIM,

*Consul.*

UNITED STATES CONSULATE,

*Cadiz, June 5, 1885.*

## CATALONIA.

## REPORT OF CONSUL SCHEUCH.

## LEATHER INDUSTRY.

The manufacture of and trade in hides, skins, leather, and shoes is at present in Catalonia of great importance, owing, first, to the large development of mechanical industries, second to the constant increase of the use of leather boots and shoes in Spain and its colonies (instead of the sandals made of cord), and lastly to the manifold uses of both leather and skins in other industries. Leather contributes largely to the life of many industrial professions, and there is hardly any that in one shape or another is not obliged to use it. Its use is not limited to the shoemaker, saddler, book-binder, &c., but it likewise finds its way into immense factories, where, being transformed into belts, it transmits the motive power from mighty engines to numberless machines, and even in the most modest work-shops forms part of many tools and utensils.

## HIDES AND SKINS.

Although for the manufacture of leather the skins of all quadrupeds can be employed, many are not destined to this use, either on account of their very small size or their being employed for furs or similar objects. Those used for tanning are ox, cow, horse, ass, sheep, lamb, goat, kid, deer, fawn, and pig.

Ox and cow hides are for soles, calf-skins for boots and shoes, horse and ass hides, which are thin and fine, are almost exclusively used in saddlery and harness making, sheep-skins in book-binding and for the manufacture of colored leathers; lamb and kid skins are principally consumed in the glove trade, while deer and some sheep and lamb skins are worked into what is known as "chamois." Pig-skins are largely used in the saddlery and harness making.

## COUNTRIES FROM WHICH HIDES AND SKINS ARE OBTAINED.

Spain itself furnishes certain quantities of horse and ox hides, the greatest part, though, for the wants of the market are imported from the Rio Plata, Porto Rico, Uruguay, and Brazil, from France and England, and in smaller quantities from Germany, Mexico, the United States, Algiers, Portugal, and the Canary Islands.

The imports from the United States in 1883 amounted to only 19,145 kilograms. The hides most preferred and commanding the highest prices are from the slaughter-houses of Bordeaux and Paris, and next those from South America and the Spanish provinces of Cordova and Granada.

The best calf-skins come almost entirely from Hamburg.

The sheep-skins most appreciated for tanning are those weighing from 19 kilograms upward. Sheep furnishing such kind of skins are killed throughout Spain, but those in best condition, owing to the better pasture and healthier development, are from the "Maucha and Estramadura" districts and the outlying country of the cities of Tarragona and Valencia.

Lamb-skins are received from the Catalan towns of Manresa, Vich, Olot, Figueras, Gerona, and Ampurdan.

Deer, fawn, and seal skins, but very little used in Catalonia and Spain, come from abroad.

Besides the importing and dressing of skins, there is a large commerce of export of certain kinds, viz, sheep, goat, and kid skins. Large quantities of sheep-skins are sent to England, Holland, Germany, and Italy, while France, Portugal, and Gibraltar are receivers from Spain of goat and kid skins.

HIDES AND SKINS TANNED IN CATALONIA, ETC.

All sorts of skins are more or less used, but on an important and large scale those of sheep, oxen, cows, lambs, goats, calves, kids, and horses. The tanneries procure the skins from special agents sent to the slaughter-houses throughout the country, and also from merchants dealing in raw hides.

Prices of raw hides.

Description.	Price.	Description.	Price.
	<i>Pesetas.</i>		<i>Pesetas.</i>
Hides with hair on..... per cental..	120	Calf—Continued.	
Calves.....do.....do.....	140	Montevideo, middling, per cental ..	80
Sheep and lamb.....per dozen..	27-30	Cuyabano, superior.....do.....	105
Goats.....do.....do.....	40	Cuyabano, middling.....do.....	95
Kids.....do.....do.....	27	Cuyabano, inferior.....do.....	80
Horse:		Cordova, superior, winter coat, per	
Native.....each.....	10	cental.....	115
Buenos Ayres, superior.per cental..	100	Cordova, half winter coat, per cental	95
Buenos Ayres, middling.....do.....	85	Cordova, summer coat.....do.....	75
Montevideo, superior.....do.....	120	Buenos Ayres, winter coat....do....	100
Montevideo, middling.....do.....	90	Buenos Ayres, half winter coat, per	
Calf:		cental.....	95
Cordova, winter coat.....do.....	110	Buenos Ayres, summer coat, per	
Cordova, half winter coat.....do.....	100	cental.....	85
Cordova, summer coat.....do.....	80	Montevideo, winter coat, per cental	95
Buenos Ayres, superior.....do.....	95	Montevideo, half winter coat, per	
Buenos Ayres, middling.....do.....	80	cental.....	90
Montevideo, superior.....do.....	100	Montevideo, summer coat, per cental	85

NOTE.—The peseta is equal to 19.3 United States cents, and the cental to 41.60 kilograma, or 91 pounds 13 ounces, avoirdupois.

The above prices given are the mean, varying somewhat according to the season and the demand of the market.

SPECIALTIES OF THE LEATHER INDUSTRY IN CATALONIA.

Each town in Catalonia, even each individual manufacturer, may be said to have a special branch in the tanning of leather. Thus, some manufacture solely sole leather, others exclusively belting leather; some the special leathers for saddlery and harness makers, while others fine white sheep-skin, morocco, chamois, kid, &c. Besides these chief divisions there are many subdivisions. Sheep-skins, according to the manner of tanning, are used again for distinct purposes. Some tanneries use only oak bark, and the leather, after undergoing further manipulation, becomes black and is converted into “patent leather.” The hides tanned with sumac are principally destined for white and colored sheep leather (tafiletes) for book-binding and similar purposes. This last is quite an important branch of tanning industry.

The principal cities or towns interested in the manufacture of leather and their specialties are as follows: Igualada and Manresa, sole leather; Figueras, straps and belting; Ripoll, oak-tanned sheep; Reus, sumac-tanned sheep; Vich, chamois and oak-tanned sheep; Barcelona, besides the former, fine white and colored sheep leathers (tafiletes).

## TANNING MATERIALS.

The principal object sought in tanning is to change hides into leather, whereby they lose their tendency to corrupt and become hard and impervious to water. These ends are obtained by subjecting the hides and skins to a prolonged contact with substances containing the tanning matter after they have undergone a chemical or mechanical process depriving the skins of all foreign elements.

The raw hides in the market are of three classes, (1) fresh from the animal, (2) dried, and (3) salted. Only tanneries near slaughter-houses use the first, while the greater number prefer hides recently salted. Although the latter are preferred, many tanneries use, for convenience' sake, dried skins, as this avoids the necessity of collecting daily the skins of recently-slaughtered animals. Many houses in Barcelona devote themselves to the drying of skins, which they again sell to the tanneries. In the smaller towns in Catalonia the drying is done directly in the slaughter-houses.

Tanning is effected by various means, but principally by tannic acid, alum, or greasy substances. Tanning by tannic acid (contained in nut galls and oak bark) is the only true tanning to which the term can be properly applied.

Some establishments use alum salts for (1) sheep, lamb, and goat skins previously treated with lime, after which the alum is applied, mixed with sea salt, without saturating the hides with greasy substances; (2) thick skins, such as oxen, cows, buffaloes, and horses, in which no lime is but used, which are impregnated with alum, seasalt, and greasy substances; and (3) kid, calf, and lamb skins, when destined for the manufacture of gloves or shoes of fine quality.

Oils and greasy substances are likewise used in preparing deer, fawn, lamb, sheep, and sometimes calf skins for the manufacture of straps and waist belts. The substance used is a mixture of fish-oil, obtained from the provinces on the Bay of Biscay (where there are large fish-salting establishments), and 4 to 7 per cent. of carbolic acid added.

The substances principally employed in Catalonia for tanning skins are:

(1) Oak bark, gathered in spring, when it contains the greatest quantity of tannic acid; the bark is dried and reduced to powder.

(2) Pine bark (which is taken from the logs immediately after the trees are cut down), most of which comes from the Balearic Islands.

(3) Sumac leaves and stems of the bush of this name, largely imported from Syria, Turkey, and Greece, and in small quantities from North America and Algiers.

(4) Ruldo, a native plant of Catalonia, where it is extensively used, but little known in the rest of Spain or foreign countries. This latter substance, being the cheapest and most easily obtained, is most used, after which come pine bark, and, on smaller scale, oak bark and sumac, especially when a light-colored product is desired.

## TANNING PROCESS.

As it is practiced at present in Catalonia, tanning with oak bark comprises several operations: (1) Cleaning the skins or hides, both on the exterior or hair side and the other next to the flesh; (2) proper tanning; and (3) dressing for merchantable leather.

Cleaning of the skins comprises four secondary operations: (1) Softening; (2) cleaning hairside; (3) cleaning flesh side; and (4) swelling cleaned skins.

For the ulterior process the skins must first acquire a uniform softness, all creases and stiffness must disappear, and all particles of flesh and blood separated. In fresh hides these objects are attained by leaving them in running water or troughs two or three days. When the hides are dry or salted, they are kept in the water eight to ten days, and if the system of running water is employed the hides are placed so that the current runs against the hair, so that the water may have full action on the entire surface of the skin. After they are well softened they are cleaned first on the side next to the flesh, afterwards on the hair side. The first operation requires much care and skill. The skins are stretched on a semi-cylindrical piece of wood, one end resting on the ground, the other on a block; the operator uses a knife with two handles, somewhat curved on the back and a blunt edge, and passing it over the skin from the block to the ground separates all grease and whatever particles of flesh that may have remained after washing. The skin is then replaced in the water, and after twenty-four hours again scraped, beaten, and the water allowed to drain off.

After cleaning the fleshy side the skin is treated for the hair or wool side. The dermis must be freed from the epidermis and hair and wool. This is done in various manners, generally by the use of lime. This is applied in a layer on the flesh side after the hide has been well softened and washed. With sheepskins, where the wool is to be preserved and which would be damaged by contact with the lime, the skins are doubled up so to show only the wooly side. The lime lays between the two contiguous portions of the inside and gradually penetrates the skin. This is effected in winter in fourteen to fifteen days and in summer in nine to ten, when the wool is easily separated. If, however, instead of sheepskins, where the wool is to be preserved for other uses, the hides of other animals are to be treated, the process is much more simple. The skins are thrown into ditches, dug for the purpose in the ground, and filled one-quarter of their depth with strong lime. The skins are laid in one on top of the other, so that the lime and water penetrates well between each two and cover all. There are several ditches, each containing lye of different strength to be used according to the different conditions of the skins. The lye is frequently stirred, the skins taken out and replaced twice a day. This treatment continues for days, sometimes for two to three weeks. The lime frees the skins completely from hair and changes the grease contained in them into lime-soap, which, though insoluble in water, is easily separated in the swelling process, described further on. The swelling process frees the skins from the lime absorbed and the soap formed, and consists in the application of barley and bran that have undergone acid fermentation.

The skins, now well cleaned, are ready to go to the tanning pits. These are wooden trenches of oak or pine, impenetrable to water, sunk in the ground, or else of masonry well cemented. Each one has a capacity for fifty to sixty hides. Before placing the hides, the bottom is covered with a layer of 2 to 3 inches of old oak bark, and above this another an inch and a half thick of fresh bark. On this is laid, with the hair side down, a skin, another layer of bark, &c., and so on until the pit is full. Fresh bark is then filled in all crevices and a final cover of the same, 12 to 14 inches, is put on.

The skins are then allowed to lay eight or ten weeks, till a strong odor of fermentation is given off, when they are taken out and placed in another pit, where they remain four to five months, during which the tannin penetrates through and through. Again they are taken out



and placed into another pit, containing less bark than the former two, and kept therein four to five months longer, so that the skins in all remain about one year in contact with the bark.

Hides intended for belting and straps are generally left in the tanning pits two years; oak-tanned sheep-skins for shoemaking purposes only three months; sheep-skins tanned with pine bark, mixed with "rullo" (a very frequent operation), and expected to be used for morroccos and leather for book-binding, need only one month's tanning, and others finally less time yet.

The skins after being taken out of the pits are washed twice, viz, first, in water already used for the same purpose; second, in clear fresh water.

After tanning, the leather, as a rule, is not yet ready for the market, but must be "dressed." This, however, is not done in the tanneries, but by special houses who dedicate themselves again to this industry. The process is a kind of drabbing, by which the leather acquires a more compact texture, a handsome aspect, especially on the hair side, and a uniformity of thickness, all necessary requisites for final use.

The process of tanning as above described is the same in all Spain; but, while in the other provinces the leather is marketed in an incomplete state, this is not so in Catalonia, where all the different operations are gone through with to the end, so that the half or unfinished leathers from the other provinces are completed here. Outside of Catalonia very few provinces in Spain prepare and finish white and colored sheep leather. The manufacture of chamois and beaver leather for shoemaking, gloves, &c., is also confined to Catalonia.

Many tanning establishments in this industrious part of Spain are fully as complete and important as the best in other countries. For some time back machinery has been introduced to carry out certain processes, but in the beginning this innovation did not produce the desired effects, while later experience and greater perfection have produced excellent results in many of the larger manufactories in Barcelona.

#### COMMERCE IN HIDES AND LEATHER.

Tanned hides and skins worked into leather are largely exported to the following countries :

Sole leather to Cuba, England, Algiers, Philippine Islands, Italy, and France. Curried cow-skins (*vaquetas*) to Porto Rico, Cuba, France, Algiers, England, and Mexico.

Calf-skins to Porto Rico, Cuba, France, England, Portugal, and Algiers.

White and colored sheep leather and other dressed to Cuba, France, Germany, England, San Domingo, Algiers, and Portugal.

The imports are limited to fancy and ornamental leather, and skins for clothing. Patent leather, tanned, and dressed calves' skins, including sole leather from France, Belgium, Germany, Algiers, Italy. Skins for clothing prepared or in their natural state mostly come from France, England, Mexico, Sweden, and China.

*Statistics of commerce in hides, skins, and other articles manufactured from leather, between Catalonia and the rest of Spain during the year 1883.*

## IMPORTS.

Port of entry.	Merchandise.	Amount.	Value.
		<i>Kilograms.</i>	
Barcelona .....	Shoes and boots .....	788,400	\$2,165,833
	Raw hides and skins .....	78,700	32,570

## EXPORTS.

Barcelona .....	Raw hides and skins .....	472,700	\$150,658
	Tanned leather .....	27,100	30,678
	Sole leather .....	652,900	1,307,101
Arenys de mar .....	do .....	3,600	1,900
Tarragona .....	do .....	2,600	3,170

*Importation into Catalonia of hides and skins and leather from Europe and Africa during the year 1883.*

Port of entry.	Class of merchandise.	Amount.	Value.
		<i>Kilograms.</i>	
Barcelona .....	Raw hides and skins .....	847,118	\$309,000
	Patent leather and dressed calf-skins .....	26,769	96,379
	Other dressed leather, including sole .....	23,814	57,150
	Straps and machinery belting .....	8,994	17,990
	Skins for clothing .....	4,259	21,300
Port Bou .....	Raw hides and skins .....	683,024	232,230
	Patent leather and dressed calf-skins .....	35,746	130,000
	Other dressed leather, including sole .....	13,020	31,250
	Straps and machinery belting .....	1,454	2,750
	Skins and furs for clothing .....	2,100	10,170
Tunguera .....	Raw hides and skins .....	22,095	7,512
Tarragona .....	do .....	1,650	600
Other ports .....	do .....	980	310

*Importation from America, 1883.*

Port of entry.	Merchandise.	Amount.	Value.
		<i>Kilograms.</i>	
Barcelona .....	Raw hides and skins, especially from South America ..	2,187,319	\$743,700
	Furs and skins for clothing .....	490	2,300
Tarragona .....	Raw hides and skins .....	49,080	16,700
Total .....			762,700

*Imports from Asia and Oceania, 1883.*

Port of entry.	Merchandise.	Amount.	Value.
		<i>Kilograms.</i>	
Barcelona .....	Raw hides and skins .....	72,994	\$24,800

*Exports of leather to Europe and Africa in 1883.*

Port of entry.	Merchandise.	Quantity.	Value.
		<i>Kilograms.</i>	
Tunguera .....	Raw hides and skins .....	5,330	\$1,705
	Tanned hides and skins .....	1,510	1,208
Pingcerda .....	Raw sheep skins .....	100	38
Les .....	do .....	8,020	1,220
	Raw hides .....	8,400	1,010
Barcelona .....	Raw sheep-skins .....	158,343	63,337
	Other raw skins .....	292,076	93,500
	Sole leather .....	3,002	3,002
	Curried oxen and cow skins (vaquetas) .....	1,445	2,023
	Tanned calf-skins .....	1,170	3,300
	White and colored sheep-skins and other dressed leather.	37,223	44,667
Port Bou .....	Raw sheep-skins .....	142,380	56,952
	Raw goat-skins .....	760	608
	Other raw skins and hides .....	17,480	5,593
	Tanned calf-skins .....	1,964	5,500
Tarragona .....	White and colored sheep-skins, morocco and other dressed leather.	450	500
Total .....			284,963

*Exports of leather to America (South America and West Indies).*

Port of entry.	Merchandise.	Quantity.	Value.
		<i>Kilograms.</i>	
Barcelona .....	Sole leather .....	6,181	\$6,181
	Curried oxen and cow skins .....	15,372	21,458
	Tanned calf .....	7,119	19,983
	White and colored sheep-skins and other dressed leather.	124,047	148,857
Total .....			196,429

*Exports of leather to Asia and Oceania.*

Port of entry.	Merchandise.	Quantity.	Value.
		<i>Kilograms.</i>	
Barcelona .....	Sole leather .....	1,153	\$1,153
	Tanned calf-skins .....	1,454	4,071
	White and colored sheep-skins .....	3,612	4,334
Total .....			9,558

*Average prices of leather.*

Kind of leather.	Price.
Sole leather.....per kilogram..	\$0 50
Calf-skin.....do.....	2 40
White sheep-skins :	
First class.....per dozen..	7 20
Second class.....do.....	5 60
Beaver chamois for shoes.....do.....	8 40
Yellow chamois (for cleaning) :	
First class.....do.....	6 40
Second class.....do.....	4 80
Kid-skins.....	9 00
Moroccos.....	7 40
Oak-tanned sheep-skins (weighing 6½ to 8 kilograms per dozen).....per dozen..	80
	<i>Cents.</i>
Oak-tanned sheep-skins (weighing 4 to 6½ kilograms per dozen).....per kilogram..	85 to 95
Sumac-tanned sheep-skins (weighing 5 to 6 kilograms per dozen).....do.....	80 85
Sheep-skins tanned with a mixture of pine bark and ruldo and weighing 8 to 10½ kilograms per dozen.....per kilogram..	65 75

N. B.—The several kinds of sheep-skins are sold in the state they come from the tanneries.

STRAPS AND BELTING.

Intimately connected with the tanning industry is that of the manufacture of straps and machinery belting. The latter is considerably imported from England, Germany, France, and Belgium, still the greater part used and consumed is of home manufacture, many factories producing an article equally as good as any imported. The hides for best straps and belting are brought from the slaughter-houses of Paris and Bordeaux, while those of animals killed in Spain and those imported from Buenos Ayres only yield second-class article. The French hides in a fresh state are salted in brine; the tanning, for which oak bark must be used, lasts two years and more. Preference is given here to belting mechanically stretched, which, although somewhat higher in price, avoids the loss of time employed in the shortening of that of the ordinary make when in use, besides a saving of material.

The prices given below are for each meter in length, being equal to 1 yard and 3.37 inches.

Prices of straps per meter.

Width.	Thickness.	Price.	Width.	Thickness.	Price.
<i>Millimeters.</i>	<i>Millimeters.</i>		<i>Millimeters.</i>	<i>Millimeters.</i>	
25	4½	\$0 27	105	5½	\$1 22
30	4½	32	110	5½	1 30
35	4½	37	115	5½	1 38
40	4½	42	120	5½	1 43
45	4½	47	125	5½	1 50
50	4½	57	130	5½	1 53
55	4½	64	135	5½	1 70
60	5	69	140	6	1 73
65	5	74	145	6	1 83
70	5	80	150	6	1 87
75	5½	85	155	6	1 92
80	5½	90	160	6½	2 10
85	5½	95	165	6½	2 16
90	5½	1 00	170	6½	2 20
95	5½	1 05	175	6½	2 25
100	5½	1 15	180	6½	2 35

Prices of wide belting per meter.

Width.	Thickness.	Price.	Width.	Thickness.	Price.
<i>Millimeters.</i>	<i>Millimeters.</i>		<i>Millimeters.</i>	<i>Millimeters.</i>	
90	9	\$2 00			
100	9	2 40	240	11	\$7 40
110	9	2 60	250	11½	7 70
120	9	2 80	260	11½	8 05
130	10	3 20	270	11½	8 40
140	10	3 60	280	11½	8 55
150	10	4 00	290	11½	9 05
160	10½	4 40	300	11½	9 35
170	10½	4 85	400	11½	10 65
180	10½	5 30	500	11½	14 15
190	10½	5 75	600	11½	17 60
200	11	6 20	700	11½	21 00
210	11	6 40	800	12	25 80
220	11	6 80	900	12	29 30
230	11	7 00	1,000	12½	33 80

N. B.—The above prices are for belting mechanically stretched. The common classes are somewhat cheaper.

# THE MANUFACTURE OF BOOTS AND SHOES IN CATALONIA AND THE BALEARIC ISLANDS.

Among the many industries of Catalonia boot and shoe making is one of the more important. This province and the Balearic Islands supply all the needs of the Spanish Peninsula, and, besides, export several million dollars' worth to Cuba, Porto Rico, Philippine Islands, New Granada, Algiers, Buenos Ayres, Venezuela, and Portugal. Thousands of workmen are employed in this industry, even in the smaller villages of Catalonia.

The workshops for hand-made shoes and the factories for machinery-made are both large and numerous.

Here, as elsewhere, shoes made by machinery when first offered in the market found little favor, as it was thought impossible for them to compete with hand-made. This prejudice has, however, entirely disappeared, as experience has proved it unfounded, and in the course of a few years many and large factories have been established and others are being erected. The fact is recognized that no human hand, however skilled, can compete in neatness, swiftness, and perfect make with machinery in the several processes which shoes have to undergo.

In these factories the soles are first cut in strips, which then are mangled between two iron cylinders, thus acquiring great density and a uniformity of thickness much superior to hand-hammered for the same purpose, while done in quarter the time.

The sole leather is then cut for soles and heels by machines with knives of different sizes and shapes. The heels (the layers) are pressed by a machine and provisionally nailed. The soles are again shaped in special machines, and when thin, as for ladies' or children's shoes, six to one dozen are shaped and cut at once. The tops (tapas) and heel-stiffeners (contra fuertes) are the only pieces usually cut by hand after and over models of the different styles and sizes.

Although when cut by hand there is considerable saving in leather, I understand many factories prefer to cut with machines.

After preparing all the different pieces, the shoe is "set up," the heels are solidly fastened to the soles and given their proper shape. If the shoes are for lacing, the eyelets are pierced and brass bound; the soles are then scraped and sanded. All these operations are performed mechanically, after which the shoe is passed to the finisher.

In these factories, besides the machines mentioned, there are others for trimming welts and heel stiffeners, saws to cut the linings, guillotine knives, machines for scalloping and other designs, others for putting on brass tips to shoestrings, machinery for making lasts, &c.

The following table (carefully compiled) shows the different districts in Spain where shoes are made by machinery; the number of factories; the average weekly production; the value; and the number of hands employed.

Nearly four-fifths of the product is exported to the Spanish West Indies, Philippine Islands, and other Spanish Possessions, and some to South America and Algiers; the remainder is used in Spain.

Machine shoe factories in Spain (Peninsula and Balearic Islands) 1885.

Provinces.	Number.	Weekly production.						Number of work-men.	Total value per week.	Total weekly products.
		Children's.	Value.	Women's.	Value.	Men's.	Value.			
		Pairs.		Pairs.		Pairs.				Pairs.
Barcelona.....	20	6,600	\$11,000	4,800	\$12,000	4,380	\$14,600	1,200	\$37,600	15,780
Valencia.....	5	1,140	3,150	1,110	2,775	900	3,000	340	8,925	3,150
Murcia.....	2	300	500	180	450	180	600	80	1,550	680
Tarragona.....	3	420	700	120	300	480	1,600	90	2,600	1,020
Madrid.....	5	2,760	4,600	1,740	4,350	2,280	7,600	865	16,550	6,780
Gerona.....	2	120	200	90	225	90	300	40	725	300
Cadiz.....	2	120	200	120	300	300	1,000	80	1,500	540
Asturias.....	1	240	400	180	450	60	200	80	1,090	480
Palma (Majorca).....	5	600	1,000	1,080	2,700	480	1,600	180	5,300	2,480
Port Mahon.....	2	300	500	180	450	300	1,000	80	1,950	780
Total.....	47	12,600	22,250	9,600	24,000	9,450	31,500	3,035	77,790	31,950

Exports of boots and shoes during 1883.

Countries.	Quantity.	Value.
	Kilos.	
Africa (Algiers).....	800	\$1,250
West Indies and South America.....	615,989	1,847,967
Asia and Oceania.....	14,469	43,407
Total.....		1,892,624

Notwithstanding the progress in production of machine-made shoes, as shown by the foregoing table, those made by hand are very numerous, especially in finer classes. The exports from Spain, principally from the Balearic Islands, may be placed at nearly \$2,000,000.

For the home consumption, as already stated, there are many workshops all over the country, so that in fact there is an excess of production, making new markets a necessity. The natural competition brought about by this state of affairs has likewise contributed to the greater perfection in the manufacture, and I can confidently state that the shoes turned out, especially the finer classes, hand-made, are in every way equal to the best recognized Paris and Vienna manufacture and make.

Current prices of shoes.

MEN'S SHOES.

Buskins:	
Calf, pierced tops, soles welt.....	per dozen.. \$18 00
Calf, pierced tops, double sole.....	do.... 20 00
Calf, single pierced top, double sole.....	do.... 21 00
Buffalo, pierced top, double sole.....	do.... 25 00
Patent leather and cloth tops, soles welt.....	do.... 21 00
Brodquines (dull), soles welt.....	do.... 19 00
Low shoes (dull), soles welt.....	do.... 16 00

WOMEN'S SHOES.

Gaiters:	
Shagreen square, soles welt.....	per dozen.. \$15 50
Shagreen grain, soles welt.....	do.... 15 00
Calf-skin (dull), soles welt.....	do.... 15 00
Kid, fine thin sole.....	do.... 16 00
Patent leather and cloth, fine sole.....	do.... 18 00



**Low shoes:**

Shagreen, soles welt .....	per dozen..	\$12 50
Calf-skin (dull) soles welt.....	do....	12 50
Kid, fine thin soles.....	do....	14 00
Polonesas, kid, fine, thin soles.....	do....	21 00
Napoleons, shagreen, fine, thin soles.....	do....	12 00
Balmorals, fine, thin soles.....	do....	15 00

**YOUTH'S SHOES.****Buskins:**

Calf, pierced tops, soles welt.....	per dozen..	14 00
Patent leather and cloth, soles welt .....	do....	17 00
Low shoes (dull), English style, soles welt.....	do....	12 00

**CHILDREN'S SHOES (IN THREE SIZES.)****Polonesas:**

No. 1, cloth and patent leather, thin soles .....	per dozen	12 50
No. 2, cloth and patent leather, thin soles.....	do....	15 50
No. 3, cloth and patent leather, thin soles.....	do....	18 00
No. 1, light-colored patent leather, thin soles.....	do....	12 00
No. 2, light-colored patent leather, thin soles.....	do....	15 00
No. 3, light-colored patent leather, thin soles .....	do....	17 50
No. 1, shagreen thin soles.....	do....	10 50
No. 2, shagreen thin soles.....	do....	12 50
No. 3, shagreen thin soles.....	do....	15 50

**Balmorals:**

No. 1, shagreen, fine, thin soles, (eyelets and buttons) .....	do....	8 50
No. 2, shagreen, fine, thin soles, soles and welt.....	do....	11 50
No. 3, shagreen, fine, thin soles, soles and welt .....	do....	14 50

**Low shoes:**

English styles, patent leather (three sizes).....	do....	5 00
		10 50
		14 00
English styles, shagreen (three sizes).....	do....	4 50
		6 50
		8 50
English styles (dull), colored (three sizes).....	do....	4 50
		6 50
		8 50

The interests of the shoe trade are represented in Spain in the press by three organs, the *La Zapateria Española* and *La Zapateria Ilustrada*, published in Barcelona, and the *El Eco de la Zapateria*, published in Madrid.

Not only does the shoe trade in itself constitute an important branch of commerce and industry here, but the machinery used in the factories are made in this country. The largest establishment in the manufacture of these articles is, as I learn, the one of Mr. Pablo Planas, of Barcelona, who makes and furnishes complete machines of all descriptions for the manufacture of shoes.

**LASTS.**

Another special industry connected with shoemaking, but carried on apart, is the manufacture of lasts. They are made here both by hand and machine. In hand-made shoes hand-made lasts are generally used, while the large factories of machine-made use cast-iron lasts, which are sold by weight and cost (1½ pesetas) 25 cents per kilogram.

**NAMES OF FIRMS INTERESTED IN THE LEATHER INDUSTRY IN BARCELONA.**

*Importers and dealers in hides.*—Geronimo Deu, Geronimo Pujol, Joaquin Pujol, José Vila y C<sup>a</sup>, &c.

*Manufacturers of sole leather and beltings.*—Miguel Fargas, Bosch Prats y C<sup>a</sup>, Enrique Deu, Hijo de Comas Salitré y C<sup>a</sup>, Hosterrch Her<sup>as</sup>, Bofil y Geli, Ignacio Aguilera, &c.

*Manufacturers of glazed, patent, etc.*—Srs. Bosch y Prat, Ferré y Tumá, Hijo de Comas Salitre y C<sup>a</sup>, &c.

*Manufacturers of white and colored calf.*—Guillermo Peters, Hermengildo Ros y C<sup>a</sup>, Miguel Ros y C<sup>a</sup>, Migual Gadius, Isidro Felin, &c.

FRED'K H. SCHEUCH,

*United States Consul.*

UNITED STATES CONSULATE,  
Barcelona, September 7, 1885.

## SANTANDER.

### REPORT OF CONSUL PEREZ.

#### HIDES.

The importations of hides at this port are made direct from Buenos Ayres, Rio Janeiro, Montevideo, Mexico, Porto Rico, and British East India, as well as principally via France (Bordeaux), England, and Germany (Hamburg), the total amounting yearly from 60,000 to 80,000 hides.

The kinds consist almost exclusively in ox and cow hides denominated "*cueros de res al pelo*," or hair cattle hides, which are employed for preparing sole and calf leather; also untanned for making a kind of sandals, called "*abarcas*," worn by rural populations in some inland provinces. The average price of hides in the stores here vary from 2 to 3 pesetas per kilogram, the price depending upon quality and weight.

No hides are imported from the United States, and the houses engaged in this branch would no doubt be willing to make transactions with American merchants when a possible margin should be offered them.

#### LEATHER.

Only a small number of the hides imported are consumed at the tanneries located in this town and some other places of this province, the greater part being sent to the interior of the country. The tanneries established here draw their supplies principally from the slaughter houses, and prepare in all from 16,000 to 20,000 hides every year.

The materials used for tanning are the bark of the evergreen oak (*Quercus ilex* Linnée), and of the common oak tree (*Quercus robur* L.), both growing abundantly in the forests of this province; also bark of pine from Castile and the bordering Basque provinces, besides sardine-blubber fished on the coast at Galicia, and codfish oil from foreign countries. The products of these tanneries are mostly consumed here and the remainder in other provinces of Spain.

*Statement of the imports of furriers' and leather-dealers' wares at Santander, in the year 1885.*

From England .....	pounds..	216,000
From France .....	do....	100,000
From Germany .....	do....	87,000
From Belgium .....	do....	12,000
Total .....	do....	415,000

The principal importers of hides are Messrs. V<sup>da</sup> de Hara é Hijós and V<sup>da</sup> de Vazquez.

## BOOTS AND SHOES.

The manufacture of boots and shoes is carried on to no important extent in this district. Sewing-machines are in general use; otherwise all work is done by hand.

Beautiful fancy boots and shoes are made, but not quite so strong, perhaps, as they are tasteful. The current prices are: Men's boots, from 12.50 pesetas to 17.50 pesetas; men's shoes, from 10 pesetas to 13 pesetas; women's boots, from 9 pesetas to 13 pesetas.

Among the poor people instead of leather boots or shoes they use for all-day's wear the "alpargatas," a kind of slippers, made of canvas cloth with hemp-rope soles; they move comfortably, especially in dry weather, in these slippers, which have been also adopted for the soldiers when on the march in the Spanish army. They cost only from 10 to 15 pesetas per dozen. There are several factories for "alpargatas," most of them in the Basque provinces.

Owing to the enormous duties charged by the custom-house tariff no imports at all are made of boots and shoes from the United States. In consequence American products are completely unknown here. Such duties, the only ones uniformly levied in this country, are thoroughly prohibitive, and as long as they exist, I think it obvious to say that any attempt at remunerative enterprise will be struck with sure deception.

CLODOMIRO PEREZ,  
*Consul.*

UNITED STATES CONSULATE,  
*Santander, June 23, 1885.*

## BILBOA.

## REPORT OF CONSULAR-AGENT URRAZA.

## LEATHER.

The conditions and extent of the leather industry are of but little importance. Besides the skins of the few animals which are killed here, there are imported from the Argentine Republic about 15,000 skins a year. These are used for the manufacture of boots and shoes, but only one-fourth of them is consumed in this province, the remainder being sent to the provinces in the center of Spain.

The cost of the imported untanned skins, delivered in the stores of Bilbao, varies from 2.50 to 3 pesetas per kilogram, and are principally imported by the following firms, viz: Messrs. Uriarte Gorocica i Ligos, Mr. Juan Thomas de Urite, Mr. José Maria Smith, Mr. Toribio Dermith, Mr. Casimiro Landia. The materials used in tanning are oak bark, produced in this province.

The principal merchants of tanned leather are: Mr. José Maria Smith, Mr. Mariano P. de Urrutia, Mr. Toribio Dermith, Mr. Casimiro Landia, Mr. Beltram Aguer, Mr. Santos Aprais, Mr. Vicente Barana, Mr. Lorenzo Aeta, Mr. Joaquin Fernandez, Mr. Francisco Poqueta, Mrs. Fernandez é Nigo.

The prices for tanned leather vary according to size and class, as follows: Sole, from 3½ to 4 pesetas per kilogram; sheep-skins, from 4 to 5 pesetas per kilogram; kid-skins, from 8 to 9 pesetas per kilogram.

There being no imports from the United States no comparison with

the local products nor with those of other countries can be made ; and no opinion can be formed as to how American products would suit the market.

#### BOOTS AND SHOES.

There are no manufactories here, all the work being done by hand. The supplies for the stores here come principally from Madrid, Barcelona, and Saragossa. The usual forms are shoes and elastic-sided boots, and for men's winter wear, laced-up boots.

The principal merchants and makers are: Mrs. Patiño, Mrs. Manzarbeitia, Mr. José de Barandica, Mr. Santiago de Lecumberri, Mr. Francisco Urrutia, Zapateria Madrilaña.

The current prices are as follows : Men's boots, from 12½ to 16 pesetas ; men's shoes, from 11 to 13½ pesetas ; women's boots, from 9½ to 13½ pesetas ; women's shoes, from 9 to 11 pesetas.

#### MISCELLANEOUS.

In this province there are no extraordinary duties over and above those of the custom-house, which are uniform in all the parts of Spain, but these are so heavy as to be almost prohibitive.

Merchants here would prefer to use the imports from England and Germany rather than the products of Spain, but the dues are so high that they can only use the leathers from these countries in very small quantities, and only when required for special purposes. Consequently I do not think that there is much prospect of any satisfactory introduction of American produce until, by a commercial treaty, a very considerable reduction of the custom-house duties can be obtained.

A. URRAZA,  
*Consular Agent.*

UNITED STATES COMMERCIAL AGENCY,  
*Bilboa, June 8, 1885.*

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#### GIBRALTAR.

##### REPORT OF CONSUL SPRAGUE.

#### LEATHER.

No tanneries exist in Gibraltar, and being a free port, all leather shoes and boots are therefore not subject to any kind of duties.

Most of the leather employed here for the making of shoes and boots comes from Spain and Portugal, with a small proportion from England and France.

The sole leather coming from the Portuguese tanneries, and which is imported here direct from Lisbon, is the kind most in vogue, for, although hardly as cheap as that manufactured in Spain, it is greatly preferred, being a far better dressed leather, while the demands for the superior descriptions of leather from England and France are limited, as they cost comparatively much dearer.

American hemlock leather does not answer the demands or purposes of this market ; it seems that a small quantity of this class of leather was imported here last year. It was purchased in England, and cost about 25 cents per pound, but was entirely neglected.

Our manufacturers must bear in mind that the demand here is not extensive, and that the business is quite of a retail nature; besides, while giving attention strictly to the quality of the article, cheapness is the principal consideration, if they wish to compete successfully with foreign supplies.

Messrs. Samuel Sananes and John B. Cayrasso are the only two parties here who appear to devote much of their attention to the importation and retailing of leather; their supplies are chiefly obtained from Portugal, and they seem disinclined to enter into any operations with the United States, believing there would be no profit in it, unless an article like that usually sold here can be placed on this market considerably under 40 cents per pound; Mr. Sananes, however, has no objection to act as agent for any party who might wish to try this market with American supplies, charging a 5 per cent. commission on the amount of sales. He informs me that besides retailing the Portuguese sole leather at about 40 cents per pound, the price for Spanish is about 34 cents. Upper leather, coming from France, runs at about \$1, and English kip leather at about 75 cents per pound. He further assures me that these quotations leave very little margin.

#### BOOTS AND SHOES.

The British troops garrisoned here are supplied wholly by Government contractors in England with ready-made boots, while the civil population of Gibraltar usually provides itself with shoes and boots manufactured in the neighboring Spanish towns, where labor is cheaper than here. Cadiz and Algeria supply the largest quantities where the sewing machines are extensively used in this branch of manufacture.

The shoes and boots are generally made to conform to Spanish and French tastes, their cost varying materially as to style. As a general rule, especially for ladies' use, the sizes are small, of slight make, but of elaborate workmanship.

The finest descriptions of ready-made shoes come from France and England, but their use is limited to those classes as are able to afford paying the difference in price, which is considerable.

In view of the general tendency of the working and poorer classes of the civil population of Gibraltar to wear cheap shoes and boots, I am induced to believe that the sale here for the more finished and solidly made American kinds would not find much encouragement.

The Germans, Italians, Maltese, and other foreigners have invariably introduced into this market their own manufactures, and although offering them at very reduced prices, the qualities and style of their goods do not seem so far to have met with much favor. Morocco slippers and cloth and canvas shoes are much used here, especially by indoor servants, their cost not exceeding 40 to 60 cents per pair.

Boots of Spanish manufacture for men cost from \$2 to \$4.50 per pair; shoes, from \$1.50 to \$3 per pair; women's shoes, from \$1 to \$2.50; and boots from \$1.50 to \$3.50 per pair, according to quality and finish.

HORATIO J. SPRAGUE,

*Consul.*

UNITED STATES CONSULATE,

*Gibraltar, May 18, 1885.*

## MADEIRA.

## REPORT OF CONSUL CHARLESWORTH, OF FUNCHAL.

## LEATHER.

Many of the conditions covered by the interrogations exist but slightly in this consular district. I give informally as much of the information sought as the conditions furnish.

## MADEIRA, ITS PEOPLE AND TRADE.

The island of Madeira is an outlying province of Portugal, with a population a little less than 130,000, and is subject to the same scale of duties as the mother country. The imports of Madeira are confined to Portugal and her possessions, as far as high duties on the goods of other nations can control them.

There is absolutely no trade between this island and the United States in either boots, shoes, hides, or leather, and, indeed, very little with any other country. In these articles perhaps more nearly than in any others, there is a happy medium between supply and demand. The hides from the cattle of the island about supply the class of leather made from them. A few are imported from the Portuguese islands of Cape Verd. All the sole leather imported comes from Portugal, and also some goat-skins, used for light uppers. Kid and "patent" leather, in small quantities, is brought from France and Germany.

There is one tannery on the island. The material used is oak bark, obtained in Portugal. Much leather is tanned by the peasantry at their homes, by a simple process, similar to that made by the early settlers of our Western States in the days of moccasins.

## BOOTS AND SHOES.

About two thirds of the islanders are a poor peasantry, many of whom go throughout the year with bare feet. A large portion put on boots or shoes only on dress occasions. This class, both male and female, wear yellow or buff leather boots, made high and turned down at top, *à la cavalier*, with no heels, and with but one sole. These soft heelless boots are well adapted to the habits of a people who dwell on the most rugged habitable island on the globe, and who must ever be going up hill or down. This is a warm and very equable climate, and the boots and shoes worn are all necessarily of light materials.

The capital city, Funchal, with a population of about 27,000, consumes most of the leather goods imported. The buff boots of the poorer people have no pretensions to shape. The better class, proud of their small feet, generally wear low shoes or gaiters. The prevailing style of gentleman's shoe is made tapering to, and slightly turned up at toe, sometimes to the point of deformity. Ladies affect the extremes of fashion. They walk very little and wear generally low, light shoes. Girls' shoes are generally worn well up on the ankle. In the case of both ladies' and girls' shoes high heels prevail. Anything heavier than goat, light calf, or kid is never worn in the city by either sex, and, owing to the absence of mud, patent leather is much used. There is little call for leather belting, as little machinery is used on the island.

There is a small export trade to the Portuguese colonial possessions, mainly in the boots described. Last year this trade amounted to \$1,672.41.

## IMPORT DUTIES.

The import duties are specific. In our currency the duty on boots and shoes is 41 cents per pair; on sole and calf leather and anything heavier 20 cents per kilogram; on kid, goat, and other light leathers, 35 cents per kilogram. There are no discriminating duties.

## HOW TO INTRODUCE AMERICAN SHOES.

I should be pleased to point out wherein a trade in the articles named could be introduced. The absence of steam communication, except by way of Europe, is a present barrier. Could samples of light gentlemen's shoes and ladies' gaiters and slippers be consigned to a reliable merchant, a small trade might result that would, when more direct communication is obtained, be a means of extended trade.

I would name Mannel D. Ornellas, a dealer in leather goods, as a person who would answer any communication, and who would, if goods were suitable, buy a small order for introduction.

FIRTH CHARLESWORTH,  
Consul.

UNITED STATES CONSULATE,  
Funchal, June 9, 1885.



AZORES.

The shoe and leather industry is most insignificant, as the majority of the population wear no shoes at all. The hides tanned in the island are obtained here, and sumac and oak bark are the tanning materials, both being supplied locally. Leather costs about 50 cents a pound; none is exported, but raw hides are sent to Lisbon where they bring about 20 cents a pound. A very small quantity of French calf-skin is imported. There is no importation of American leather, though a commercial traveler for a Boston commission house has frequently been here exploring the field.

Alfredo Ferin and José Bettencourt d'Avila are the only persons whom I can recommend to such as may wish to attempt to introduce American leather here.

BOOTS AND SHOES.

It can hardly be said that the boot and shoe trade exists here, as people are not in the habit of buying their shoes ready made, but they order them of the shoemakers.

The kind of shoes generally used are low ones with elastic, and should any one wish to consign a sample collection, a firm I would recommend would be Luiz Soares de Souza. Besides a duty of 40 cents a pound, the habit of the people of having their shoes made, would have to be overcome.

R. SEEMANN,  
Consular Agent.

UNITED STATES CONSULAR AGENCY,  
St. Michael's, Azores, July 19, 1885.

Consul S. W. Dabney writes from Fayal, Azores, that there is nothing to encourage an attempt to introduce American goods into those islands.

SWITZERLAND.

Consul George L. Catlin, Zurich.  
Consul Lyell T. Adams, Geneva.

TARIFF.

Tariff on—	General tariff.	Special with France.*
	Francs.	Francs.
Hides and skins:		
Raw, green, salted, dried.....per 100 kilograms..	.60	
Tanned, dressed, with hair.....do.....	8	
Leather, all kinds.....do.....	8	
Leather goods:		
Finished, except shoes.....do.....	40	30
Unfinished, except shoes.....do.....	80	
Shoes:		
Leather, coarse.....do.....	85	30
Leather, fine.....do.....	70	30
Silk or satin with leather soles.....do.....	80	
Of other tissues.....do.....	35	
Partly finished, of all kinds.....do.....	30	
Bark for dyeing, raw or ground.....do.....	1	

\* Expires February 23, 1902.

## ZURICH.

## REPORT OF CONSUL OATLIN.

## LEATHER.

*Condition and extent of the industry.*

According to information recently published, there are in Switzerland 356 tanneries, employing in all 2,425 hands. Of these, 130 are located within the eight cantons\* which in any way concern the consular district of Zurich. Many of these, however, are very small establishments, scarcely worthy of the name. In a number of localities, individual tanners, employing perhaps a workman or two, or an apprentice, eke out a scanty subsistence, using only the most primitive methods. On the other hand, and especially in the cantons of Aargau and Zurich, great pains have been taken by many of the tanners to keep pace with all the modern improvements in hydraulic and steam power for grinding bark, and working the engines, and by substituting machine for hand labor, wherever practicable.

*Swiss imports in 1884.*

[Per 100 kilograms.]

Descriptions.	France.	Germany.	Austria.	Italy.	Total, 1884.	Total in previous year.
Raw hides:						
Large.....	421	7,571	375	657	9,024	4,801
Small.....	240	645	308	74	1,267	4,837
Dressed hides, with hair.....	23	31	.....	4	58	87
Pelts.....	42	183	3	9	237	221
Leather:						
Raw.....	2,831	10,710	119	314	13,974	11,804
Finished.....	1,451	3,904	74	149	5,588	4,548
Leather wares:						
Coarse.....	80	602	26	16	724	820
Fine.....	437	639	8	10	1,094	1,084
Totals.....	5,525	24,285	913	1,233	31,966	27,673

It should be remarked by the American manufacturer that under the imports above classified as coming into Switzerland from France and Germany, are included all from Belgium, England, and the United States, all of which entering either over the French or German frontier, are credited to the latter countries by the Swiss customs officials, regardless of the country of their original production. They thus lose their identity so far as the official records are concerned, and it becomes therefore practically impossible to obtain any authentic statistical information as to the actual amount of any dutiable line of goods imported into this country from the United States. The same remark of course applies to the imports of shoes, given further on. Tanned leathers, it may be stated, form the principal imports from our country in this line. The specialties of the Swiss tanners are sole leather and blacking leather (*wicksleder*), the latter being, it is said, the only domestic or home-made leather which the Swiss manufacturer can afford to use.

\* Aargau, 22; Glarus, 6; Lucerne, 16; Schaffhausen, 15; Schwyz, 9; Thurgau, 31; Zug, 3; Zurich, 28; total, 130.

Cost of delivery.

Hides :		
Raw .....	per kilogram..	\$0 25 to \$0 26
Calf (large) .....	do....	21 23
Calf (small) .....	do....	27 29
Sheep, with wool .....	do....	77 87
Sheep, without wool .....	do....	29
American, dried, A <sup>1</sup> .....	do....	43 45
American, salted .....	do....	24
Leather :		
Sole, first quality .....	do....	69 77
Calf-skin .....	do....	1 35 1 93
Sheep-skin .....	do....	3 86 7 72

TANNING MATERIALS AND WHERE SUPPLIED.

Oak and pine bark are the principal materials used in tanning, but the domestic supply of these is far from adequate, though efforts are being made by influential parties to develop the culture of the white oak wherever practicable. In some localities, where the oak is now scarce, pure pine bark is used with results which are reported as being in the main satisfactory. From France and Algiers some tanners import green oak bark, which tans well and gives a good color. White oak bark is also largely imported from France. For use in some establishments, still other materials are imported, such as extract of chestnut, extract of American hemlock, mirobalan, &c. In this connection, a local tanner states that a prejudice exists in regard to American leather, based on a belief that more chemicals and other materials than oak bark are used in its productions. An effort to secure the entry of tanning materials free of duty may be mentioned in this connection. The following table shows the amounts imported, and whence, during the year 1884, viz :

[Per 100 kilograms.]

Description.	France.	Germany.	Austria.	Italy.	Total 1884.	Total in previous year.
Bark, unground .....	28, 743	7, 487	705	5	36, 940	33, 395
Bark, ground .....	14, 317	1, 625	275	73	16, 290	18, 265
Total .....	43, 060	9, 112	980	78	53, 230	51, 660

THE SWISS LEATHER PRODUCT.

The total annual Swiss production of hides and leather is estimated by competent authority at 22,000,000 francs in value, of which a little over one-quarter or 6,000,000 francs' worth is exported. If to the remainder, i. e., 16,000,000, we add the estimated value of the imports, i. e., 10,000,000, we have a total annual compensation of 26,000,000 francs, or a trifle over \$5,000,000 worth of hides, skins, and leathers in Switzerland. Of the domestic product reserved for home consumption, about one-third goes to the manufacture of shoes, the remainder to the general trade. The distribution of the 6,000,000 of exports cannot be accurately given as regards their country of ultimate destination, but the direction in which they were exported may be seen by a glance at the

following table of exports from Switzerland during the year 1884, viz :

[Per 100 kilograms.]

Description.	France.	Germany.	Austria.		Total 1884.	Total in previous year.
Raw hides:						
Large .....	12, 112	17, 838	1, 567	2, 085	33, 552	35, 336
Small .....	5, 165	1, 791	207	156	7, 319	9, 379
Dressed hides, with hair.....	54			7	61	4
Pelts .....	8	14		23	45	57
Leather:						
Raw .....	1, 947	1, 162	82	335	3, 526	5, 950
Finished.....	1, 371	149	7	87	1, 614	456
Leather wares:						
Coarse.....	18	22	13	8	56	76
Fine .....	34	31	2	3	70	87
Total .....	20, 704	21, 007	1, 878	2, 654	46, 243	51, 345

#### SWISS OPINIONS OF AMERICAN LEATHER.

The following report of an interview with one of the most prominent leather importers and shoe manufacturers in this district may be taken as reflecting the views of all importers and manufacturers in the same branch of trade in this section :

Question. How does American leather compare with that received from other countries ?

Answer. It is in general inferior to the European article. That which we manufacture here in Switzerland is considerably better, being less porous and therefore more durable.

Question. In that case, how does our American leather suit your market ?

Answer. It suits at present only for the cheaper lines of goods, which are manufactured in large quantities for export. For our home goods it is less suitable. The demand for American leather would be much greater here if more care were taken in its manufacture.

Question. How, in your opinion, can the faults to which you refer be remedied ?

Answer. Why here, for instance, very frequently in the course of trade, we find the hides badly slit, for want of proper care at the time of slaughtering. Then again when the hide is stripped from the carcass it is carelessly done, and pieces of flesh are left adhering to it, thus injuring the leather. Those who ought to know say that in the inferior lines of American leather the tanning process has been done too quickly and that the hides are not allowed to remain in the vat as long as they ought to.

Question. What would you consider the best means for furthering the import of American leathers into this section ?

Answer. Simply to remedy the above-mentioned objections, which would seem to be all the more advisable, for the reason that recently there have been imported hither from Australia some very good leathers, which find great favor among buyers. If good business relations are to be brought about and fostered between leather and shoe dealers here and in the United States, the establishment of agencies empowered to transact business personally would be desirable. There has been, of late, it may be stated, some increase in the importation of American sole and upper leathers into Switzerland, at least 3,000 or 4,000 kilograms of uppers being brought in monthly, not only for the shoe, but also for the saddlery trade.

In this connection I translate from the official report of the Swiss National Exposition of 1883 the following significant admission :

As has already been intimated, America sends us a considerable quantity of tanned leathers, consisting of the sole leathers known as "hemlocks," and of dressed uppers, such as grained and tawed cow-skins, and waxed leathers, known as "splits," which are used in all the factories introducing cheap goods. If the American tanning interest can compete advantageously with ours and with those of our neighbors, it is

chiefly due to the low price of tanning material and the rapidity of the tanning process by the use of hemlock, which requires only three months' time to finish sole leather, while with us it takes at least a year to tan leather well. The old maxim, "tan and time," is no longer strictly applicable to the work of any other than routine tanners. The Americans have lately become formidable competitors, because they have had the good sense to discard the ancient traditions of the trade and because they hesitate at no experiments in their efforts to introduce in operation new methods which we, on our part, are too apt to overlook. If those Swiss tanners who up to now have been contented to work on the same principles as their ancestors did would only take the trouble to study their trade a little more thoroughly and in detail, and would look up methods for accelerating and perfecting the process of tanning, we should no doubt find this industry taking on a new growth among us.

#### BOOTS AND SHOES.

The establishment of shoe factories in this section of Switzerland is comparatively recent, dating only from 1850, when two were started at Schoenenwerd and Winterthur, respectively. Only hand labor was first used, and afterward sewing-machines as well. In 1860 two other establishments were put in operation, one at Olten, the other at Winterthur, and then the number gradually increased until now there are in all forty at various points, that at Schoenenwerd being the largest in Europe. In 1856 Lemerriers' sole-screwing machines were introduced from Paris, and in 1868-'70 the Ballys, at Schoenenwerd, introduced the American sole-sewing machinery with all its accessories. From these beginnings the use of machinery became, and still remains, general.

For the last ten years, however, notwithstanding the use of machinery and the excellence of the wares offered, the sales of the Swiss manufacturers have been steadily declining, in some cases the diminution having reached 50 per cent. The situation is explained as follows in the report of the Swiss National Exposition of 1883, previously quoted. It says:

Greatly as the demand for shoes of all descriptions and for various uses has increased during the last twenty years, as, for instance, is shown by the fact that even in our remotest valleys, where formerly only the clatter of wooden sabots was heard, fine gaiters are now in demand, yet both domestic and foreign production have exceeded what was required. The shoe trade is overdone, and, through foreign manufacturers, is brought into discredit to a greater extent than any other branch of industry. The dark side of the picture is easily discovered, viz, overproduction, carelessness in giving credits, failures, and numerous sellings-out, resulting in damage to the retail dealers and in despair to the trade in general.

Next to the watch-making industry shoemaking is the most important branch of trade in Switzerland, furnishing a livelihood to 67,000 persons, including both the working people and those dependent upon them.

#### ANNUAL CONSUMPTION.

The value of the boots and shoes annually used in Switzerland may be estimated at \$10,000,000 (or an average of \$3.50 per capita), of which amount four-fifths represent domestic wares. The imports average \$2,000,000, the exports \$1,000,000 annually. Swiss shoes have a good reputation abroad and find a ready sale. The imports and exports during the year 1884 were as follows, viz:

[Per 100 kilograms.]

Imports and exports.	From or to—				Total, 1884.	Total in previous year.
	France.	Germany.	Austria.	Italy.		
Imports:						
Leather shoes—						
Coarse.....	339	3,241	41	11	3,632	3,056
Fine.....	839	2,165	49	31	3,084	3,010
Shoes of cloth, felt, &c.....	86	320	26	.....	432	379
Total.....	1,264	5,726	116	42	7,148	6,445
Exports:						
Leather shoes—						
Coarse.....	326	125	2	535	988	543
Fine.....	500	3,977	.....	1,023	5,500	3,759
Shoes of cloth, felt, &c.....	1	.....	.....	.....	1	2
Total.....	827	4,102	2	1,558	6,489	4,304

In connection with the subject of the export of Swiss shoes the report above quoted from says :

Formerly ordinary wares were preferred for export, but at present fancy goods take the lead, owing to the fact that the former, in consequence of high entry duties and the development of mechanical production, are being more and more supplied by domestic manufacture in the respective countries where we formerly sold. As each country endeavors thus to supply its own demand, and to increase its entry duties in proportion, a noticeable depression in exports is to be looked for. The forced return of these goods is another serious cause of detriment to the shoe-trade interests and affords ground for directing the earnest attention of officials to the fact that they should do all that they possibly can to maintain the shoe export business at a point where it can compete with others.

AMERICAN SHOES IN SWITZERLAND.

But notwithstanding this discouraging view of their own business situation the Swiss dealers do not apparently take any the more kindly to the importation of American shoes. Those conversant with the matter report that there is no profit in importing them. The complaint is that their form and work do not suit, and that their cost is too high in proportion to their quality. One of the first firms in this section has on three several occasions made conscientious efforts to introduce American shoes into this market. The firm is one which knows the business thoroughly and is competent to bring our wares into general sale if anybody could. The first two orders it sent were for moderate quantities, but the third comprised eighty cases. The firm now reports as above, viz, shape unsuitable, work poor, cost too high.

The sizes mostly sold here are for men's shoes, numbers 40 to 44 ; for women's, 36 to 39. The shapes and forms used are so varied that I would advise any American manufacturer intending to compete in the Swiss market to send some reliable party here an order for a half dozen samples of Swiss-made shoes in order that he may judge for himself of what the requirements of this market are.

SWISS SHOES FOR HOME USE.

The Swiss shoemaking industry, continues the report above quoted, so far as it relates to domestic consumption, is in a bad way. It hardly pays expenses. France, Germany, and Austria deliver goods greatly inferior in value, but which, nevertheless, sell at a profit, while the Swiss goods do not. The countries mentioned have most of the necessary materials at home, without duty. Their manufacturers have the advantage of frequent choice therefrom on the spot; they have a working force who



live cheaper, work cheaper, and are to some extent better skilled in their work; they have smaller business expenses, owing to larger sales in more extended districts; and they have besides no limit to the hours of labor. The entry duty into Switzerland for finished goods from France, Germany, and Austria is no higher than that which the Swiss manufacturer is compelled to pay on his imported leather. It is not astonishing, therefore, that about 7,600 metric centners (100 kilograms), valued at 10,000,000 francs, are annually imported, while the Swiss manufacturer who seeks to sell his goods in neighboring lands finds himself confronted everywhere with a high entry duty. If he succeeds in filling an increased demand in his own country, it may be ascribed to the fact that he knows better than a foreigner would how to suit the wants of the public, and that at present he is working, in most cases, without profit, and in any case delivering a much better article than does the foreign competitor. His only remedy lies in an increased entry duty on finished shoes. The Swiss consumer would be none the worse for it. He would be protected from imposition, not only by domestic competition, which has long been active and is constantly on the increase, but also by the influence of the growing organization known as the Shoemakers' Association. Even granting the contrary, it would be more profitable to have the comparatively higher outlay of 110 francs remain and circulate in the country itself than to have the lesser amount of 100 francs go across the frontier.

Since the conclusion of the commercial treaty between France and Switzerland, [says the exposition report], the question of entry duties, so far as it refers to this class of goods, could not be in greater confusion than it actually is. Since May, 1882, the Swiss manufacturer has had to pay a doubly-raised entry duty on three-fourths of the leather which he needs, which he is forced to import from abroad, and of which one-third must again go abroad to compete with other goods.

A memorial from the Swiss shoe manufacturers sets forth this matter in the clearest light, and concludes with the statement that leather, finished for making up into shoes, is loaded down as follows with duty, viz: Under the special tariff, 8 francs per 100 kilograms, with three-eighths per cent. ad valorem, and under the proposition of the National Council, 12 francs per 100 kilograms, and five-sevenths per cent. ad valorem.

The Swiss tanners themselves propose an increased duty on sole leather alone, but not by any means on the score of other kinds which they cannot produce. On these latter a reduction should be made in the tariff in force prior to 1882, which calls for a duty of 4 francs on ordinary and 7 francs on colored leathers per 100 kilograms. This annual contribution made by the demands of domestic shoe-wearing to the national treasury alone amounts, under the present heavy duty of 8 francs on leather, to 48,000 francs; while, on the other hand, finished shoes of imported foreign make are, under the special tariff, only obliged to pay on an average valuation of about 1,300 francs to the 100 kilograms, a duty of 30 francs or 2½ per cent. ad valorem. This anomaly is rendered still worse by its consequent abnormal pressure upon the poor as against the rich. The same fivefold duty, based upon weight alone, is levied upon the workmen's shoes from Tuttlingen and the finest satin gaiters imported for the millionaire from Paris or Vienna.

Previous to 1882 the duty was 16 francs on coarse and 30 francs on fine shoe-wares per 100 kilograms. Under the new special tariff the French shrewdly consent to an increased duty, but only on the coarser kinds of goods, well-knowing that these latter come in from Germany, while their own finer and lighter kinds of goods enter as formerly, almost without duty. The Swiss Trade Union advocates an entry duty of 40 francs, or 4 per cent., on the coarse shoes, averaging 1,000 francs value to the 100 kilograms, and 80 francs, or 4½ per cent., on the fine shoes, averaging 1,700 francs value to the 100 kilograms. Germany imposes a duty of 70 francs on fine and 50 francs on coarse shoes to the 100 kilograms. France charges 1 franc duty on ladies' gaiters per pair, and 1 franc 60 centimes on men's gaiters, or from 7 to 10 per cent. ad valorem. Both countries, therefore, practically prohibit the entry of our shoes, inasmuch as it is impossible for the Swiss manufacturer to overcome this rate of duty, combined with the somewhat higher price of labor, the freight charges, and the entry duty on leather.

#### LABOR AND WAGES.

The Swiss appear to take kindly to the shoemaking industry. There is more than sufficient labor in the country to supply the demand; nevertheless, many journeymen come over from Germany in the hope of bettering their condition. Work is generally paid by the piece, men earning on an average 3.50 francs, and women about 2 francs per day. The annual wages paid out for shoemaking in Switzerland amount to 12,000,000 or 14,000,000 francs. The condition of the working people in this branch of trade is extremely favorable, and relief associations or similar organizations for their benefit exist in most of the factories.

## PACKING AND SHIPPING.

Shoes are shipped as elsewhere in stout packing cases, leather in bales, with regard in all cases to convenience for weighing in crossing the frontier, duty being levied, as before stated, according to weight alone.

## PROMINENT SHOE AND LEATHER DEALERS.

As a guide to American shoe and leather dealers who may be desirous of opening up a trade with this section, I give herewith a list comprising ten of the leading houses in this line in this consular district, viz: at Zurich, J. Fenner, J. Lussy, Shuhmacher Association; at Winterthur, J. Hofmann, J. F. Ammann, Jordan & Co.; at Olten, Strub & Glutz, C. Demenga, A. Schenker; at Schoenenwerd, C. F. Bally.

It would be useless to approach any of these dealers with an inquiry on what terms they would act for American houses, unless some tangible proposition were before them upon which to decide. I would, therefore, suggest that business proposals from our manufacturers should be made to them direct or through an agent here. Should the address of such an agent be desired, I beg to suggest Mr. Philip E. Mark, of Zurich, as a competent man who has a wide acquaintance among the dealers, and who is prepared to receive and act upon correspondence on this subject, if addressed to him by parties in the United States.

GEORGE L. CATLIN,  
*Consul.*

UNITED STATES CONSULATE,  
*Zurich, June 2, 1885.*

## GENEVA.

## REPORT OF CONSUL ADAMS.

## TANNING INDUSTRY.

In additon to the small tanneries for local wants in the cantons of Geneva and Vaud, there are two important centers of production at Geneva and Lausanne, which supply the higher grades of leather for both the home and foreign markets. The business has been prosperous until overtaken by the prevailing commercial depression of the past two years. In all the tanneries of the district the hides and skins employed are obtained in the neighboring region, where the cattle industry has assumed very large proportions. The Geneva tanneries yielded in 1884 from 10,000 to 11,000 sides of leather, those of Vaud from 12,000 to 14,000, in all, about 24,000 sides. The output is consumed both here and abroad, the principal foreign market for the Geneva leather being Paris, and New York and Philadelphia for that of Lausanne.\*

\* *Declared value of exports of leather to the United States.*

1880 .....	\$185,842
1881 .....	295,034
1882 .....	489,752
1883 .....	504,416
1884 .....	222,616

This does not cover the entire exportation, a portion, not considerable, of the consignments to Paris and elsewhere being reshipped thence to the United States. The article exported is almost exclusively *veau ciré* or calf-skin.

The only tanning material used is oak bark from the surrounding forests. Hemlock bark and tanning extracts are rejected as worthless or of inferior value.

Ten years ago or more there was a considerable importation of hides from the United States and South America. It was found that the hides themselves were of inferior quality, owing to the breed of cattle, and had suffered from careless handling in flaying the animal and in preparing for the market. Special complaint was made of the incisions and marks of branding irons, which appear to be universal in the American hides. For these reasons and because the local supply was ample the importation from the United States, as from most foreign countries, has ceased.

#### LEATHER.

Imports of leather are mostly from France and Germany, and are nearly all of the higher grades. None of any kind now come from the United States. It is held, of course, that the inferiority mentioned in hides reappears in American leather, and, in addition, that the American tanning is more hurried and careless and the material used unfit for the purpose. The effect is that the American leather has been driven out of competition and out of the market. The remedy is, either to improve processes at home or to correct the misrepresentation here. All that is needed is actually to put upon the market as good an article as any at lower rates or a better article at higher rates.

#### *Wholesale (manufacturers') price of leather at Geneva.*

Calf-skin (veau cirés) .....	per kilogram..	\$1 54 to \$3 28
Morocco .....	do....	1 93      2 32
Kid .....	per dozen..	11 58      27 02
Glove kid .....	do....	13 51      23 16
Patent leather .....	do....	17 37      28 95
French sole leather (vaches lissés) .....	per kilogram..	73      87
Swiss sole leather (gros cuirs) .....	do....	71      83

The best qualities of calf-skin, morocco, and glove kid come from France; of kid, from Germany; of patent leather, from France and Germany.

#### OPENING THE MARKET.

I renew the suggestion often made that competent agents be sent here and to other parts of Europe to study the situation on the spot. I should add that they will find here, as at Bordeaux and the other principal centers for the production of the best grades of leather, the hardest part of their task. Competition will be less trying in other parts.

My impression is that there is little hope of finding a market here for any leathers of the United States, with the possible exception of the best qualities of oak-tanned sole leather. On the other hand something may be done in sole leather through the great boot and shoe factories of German-Switzerland and Germany.

#### LEATHER DEALERS.

The principal wholesale dealers in Geneva are J. Keck, 17 Rue de Cornavin; Paul Deleschaux, 16 Rue d'Italie; Dehanne quai du Seujet; Lewis Johannot & Cie, 5 Pusterie, and Louis Pustin, 16 Rue Rousseau. None of them care to engage in the importation of American leather, or

will propose any terms without knowing the goods and the prices offered. Mr. Keck suggests that samples be sent to him with the prices at which the goods are to be offered here, which will enable him to say at once whether anything can be done.

#### BOOTS AND SHOES.

The factory system of shoemaking, which has had a great development in Northern and Northeastern Switzerland, hardly exists in the French cantons. Ready-made boots and shoes from the German cantons, Germany and France, are imported here in great numbers.

All styles are worn in varieties that nearly defy description, including the different sorts of "mountain" boots and shoes. The popular demand is for a round or square toed, easy-fitting, solidly-made shoe with elastics, and this is the one which foreign manufacturers should give most attention to. It is useless to attempt anything with the special or more fashionable styles, for which there is a smaller demand (supplied by the retail shoemakers) and a greater competition. However, a shoe, for men or women, in the prevailing English or French style with pointed toes, of showy appearance and moderate price, might do well.

#### AMERICAN ARTICLES.

An attempt was made some years ago to introduce American boots and shoes. Mr. F. Stoater, to whom I am indebted for most of these details, informs me that it failed from no inferiority in quality, but "because the Americans were too practical"; that is, they turned out a serviceable article at reasonable prices, but not in the style and not showy enough to suit Swiss notions. In all popular goods this matter of appearance and adaptation to local tastes is the important one.

#### *Wholesale manufacturers' prices per pair at Geneva of ready-made shoes.*

Children's shoes :		
Ordinary quality.....	\$0 15 to	\$0 75
Medium .....	97 to	1 35
Made to order.....	1 54 to	2 32
Women's shoes :		
Ordinary .....	97 to	1 54
Fancy styles .....	1 93 to	2 33
Best quality .....	2 32 to	3 86
Made to order.....	2 90 to	5 80
Men's shoes :		
Ordinary .....	1 16 to	1 93
Medium .....	1 93 to	2 90
Fancy styles .....	2 90 to	3 48
Made to order.....	3 08 to	5 00

Children's shoes are made in all lengths up to 23½ centimeters; women's from 23½ to 27; men's from 26 to 31.

In boots and shoes, as in leather, the wholesale houses are indifferent to the American article, and will propose no terms. The following are among the more important houses: J. Mouge & Cie., 9 rue d'Italie; Jules Desbaillets, 32 Boulevard Helvétique; C. Amidly, 11 Fusteric; La Halle aux Chassures, 17 Cours de Reir; Dupont et Marinnet, 32 rue du Marché; J. Magerin, 28 Boulevard Helvétique; Taponier & Cie., 15 Molard; and Metzger-Weil, 17 Cours de Reir. Mouge & Cie. suggest

that a few samples of the principal styles be sent to them for examination with the prices at which they can be delivered free of all charges at Geneva. They also offer to furnish samples of the most salable styles on demand, and to answer any communications. Mr. P. Stadler, 7 rue Mont Blanc, will receive goods on consignment at a commission of 15 per cent. upon actual sales, the goods to be delivered free of charge at Geneva and at the owner's risk.

On the whole there is clearly a better chance in French-Switzerland for leather goods than for leather, as in the manufacturing cantons there is a better chance for leather. But the European competition is so great, the ruling prices so low, and the whole market so depressed, that little is to be done in either.

LYELL T. ADAMS,  
Consul.

UNITED STATES CONSULATE,  
Geneva, July 22, 1885.

*Railway freight rates on leather from Marseilles, Havre and Antwerp to Geneva.*

	Franca.
Marseilles: On all shipments per 1,000 kilometers.....	43.70
Havre:	
Per car-load of 5,000 kilometers.....	37.00
Smaller shipments.....	48.00
Antwerp by Basle:	
Per car-load of 5,000 kilometers.....	63.50
Smaller shipments.....	71.00

By Marseilles and Havre goods will be delivered without transshipment at intermediate points.

**MALTA.**

*REPORT OF CONSUL WORTHINGTON.*

**TARIFF.**

No customs duties on leather or its manufactures.

**LEATHER.**

There is not a tannery on the island. A good many cattle are brought here from the Black Sea countries and from the Barbara States, the greater number arriving from the African coasts. They are brought here mainly for consumption, and their hides are subsequently shipped to continental ports, chiefly to Marseilles, France, where they are manufactured into leather. The actual number of bullocks imported into Malta during the year 1884 was 10,945, valued at \$446,473.62; the number imported in 1883 was 11,857, and in 1882, 10,459.

Considerable prepared leather must be imported into Malta to be made up into boots and shoes by the numerous small shoe shops and individual shoemakers who do their work in their own house; but any

approximate estimate of the amount thus imported it is difficult to ascertain. The condition of the leather trade, though of limited extent, must be a favorable one, judging from the prosperous appearance and style of living of the dealers.

A small quantity of American leather comes here with the larger quantities imported from European countries; but the prepared leather for shoemaking is nearly all obtained from England, France, and Italy.

#### BOOTS AND SHOES.

A large majority of the 155,000 inhabitants of these islands wear no shoes, and habitually go barefooted. The country people, working in their fields, never wear shoes; but on *festa* days they sometimes wear sandals. The numerous fishermen, coal-carriers, carters, and laborers generally, in and near the larger towns, go barefooted. Of late years it has been noticed that the poorer people are more inclined to wear shoes, especially at the numerous festivals; and the shoe trade is, in consequence, more brisk.

The Maltese shoemakers are good and industrious workmen, and make a good fit. The leather they use is generally poorly tanned and prepared; for a month or two after a pair of their shoes has been worn the scent of the vat clings to them with strong and disagreeable tenacity. I pay \$3 for a pair of shoes here that would cost me, say, \$4 in the United States; patent-leather shoes, however, are no cheaper.

According to the last census there are 886 shoemakers in the Maltese Islands. The majority of them are very poor, and work each for himself, doing rude but honest work at the entrance of their houses. They do jobs for people but little better off than themselves, and earn very small wages even when they are busiest. If such a shoemaker earns 25 or 35 cents a day he is doing well; if he earns 50 cents he is doing finely, and if he obtains 75 cents a day—working from dawn to dark, except two hours at midday for sleep—he is elate with his good fortune. He generally owns his humble kit of tools and his bench. The upper-class shops, those that do work for the middle and upper classes of the inhabitants, use sewing-machines, but not the larger machines used in the United States in stitching shoes and leather.

Two-thirds of the boots and shoes worn by the islanders are made to order by native shoemakers, and the upper parts or tops come wholly or in part prepared from England. Even the Government charitable institutions cause their inmates to be shod with shoes thus made.

There is one English boot and shoe house here—Hornby & West—a branch, I believe, of a large London establishment. The manager here informs me that his trade is good and that the business of the Malta house returns very good profits to its owners. Their prices for their goods are less than prices for similar goods in the United States, but the quality, style, and finish are very inferior. This being a colony, I am inclined to believe that the well-known “colonial grade” of goods is sent out to be disposed of here. Many British officers and residents in the island obtain their shoes from London, France, or Italy, where their measures have been taken.

There is very little export trade for ready-made goods, but there is a considerable local trade among sea-faring men who call at this port. Some shops sell boots and shoes to sailors only, and do a profitable trade. Such goods are brought out from England by the case.



## AMERICAN GOODS.

Goods of American manufacture that are known here stand deservedly high and are preferred to similar goods made by other nations. But so far as I can learn, boots and shoes of American manufacture have never been placed on this market. Some of the "uppers" imported may be of American make, though on this point shoe dealers are by no means clear. I was shown one shelf of "uppers" which the dealer said were of American (Boston) manufacture, and they were better in material and finish than similar English goods. He volunteered the information that he would like to sell American goods, but coming as they must through English dealers, he could not assure himself of their genuineness.

The best means of introducing American boots and shoes into Malta would be to establish an agent at Valletta, the capital town of the island—an active, pushing Maltese, who could speak his own tongue, English, and Italian. He should make a specialty of American goods. The articles sent to sell should be of the best make and finish, and made of enduring leather. The uneven stone walks and roads of the island are disastrous to poor leather. It would be well, also, for any American boot and shoe store established in Malta to keep in stock a good assortment of the best and most improved shoe-making tools and supplies, and even sewing-machines.

It would require a reasonable amount of capital, a good degree of patience, and a reputation for fair dealing to make an entrance, but once assured, those elements would assuredly result in a large trade and heavy profits. Such a house firmly established here could make Malta the headquarters of a central Mediterranean trade, a depot for introducing and distributing its goods into the towns and villages of Sicily and Northern Africa. Tunis is rapidly becoming Europeanized under the French occupancy. From Malta hundreds of small craft run into numerous Sicilian bays that ships and steamers cannot enter, carrying various articles for the small towns and dealers which are not otherwise easily reached. When our manufacturers adopt or improve upon the methods adopted by the English for pushing their trade interests, they may confidently hope to beat the English wherever our superior productions are intelligently made known.

The absence of more frequent direct shipping facilities is still a serious obstacle to trade and commerce between the United States and Mediterranean ports. The following are the more prominent dealers in leather on the island: I. Meli, 223 Strada San Paola, Valletta; Luigi Buhajar, 38 Strada Forni, Valletta; V. Navarro, 13 Strada Mercanti, Valletta; S. Axisa, 38 Strada San Ursola, Valletta.

JOHN WORTHINGTON,  
*Consul.*

UNITED STATES CONSULATE,  
*Malta, June 26, 1885.*

**TURKEY AND DOMINIONS.**

Consul-General George H. Heap, Constantinople.  
Consul W. E. Stevens, Smyrna.  
Consul John T. Robeson, Beirut.  
Consular Agent, M. M. Fottion, Mytilene.

**TARIFF.**

On leather, boots, shoes, &c., 8 per cent. ad valorem.

**CONSTANTINOPLE.***REPORT OF CONSUL-GENERAL HEAP.***THE TANNING INTERESTS.**

Sheep and goat skins and ox-hides are tanned in the provinces adjacent to Constantinople in sufficient quantities to supply local consumption.

Raw goat and sheep skins are supplied by the country itself, but as ox-hides are not furnished in sufficient quantities, the deficiency is imported from Russia, Roumania, and South America.

The materials used in tanning are, bark of the pine and oak trees, valonia, acorns, sumac, and gall-nuts, which are all obtained in this country.

Like all other industries in the East, the industry of tanning remains in a primitive state, and has many important faults and failings, which seem insuperable, as the people are averse to the introduction of novelties and reforms, and appear to be quite indifferent to or unable to appreciate improved methods.

There are numerous tanneries in France, Roumelia, and Macedonia, which are conducted according to the old system, and sell the leather unstretched and wet as it comes from the vats. These tanneries mostly manufacture buffalo-hides, as this leather is preferred by the peasants.

Constantinople possesses many tanneries belonging to private parties, which employ from 10 to 20 workmen, in which sheep and goat skins are dressed.

There are also two tanneries which employ machinery, one of which (the largest) turns out ox and buffalo hides of every weight, with both white and red finish, and cow-hides, called "vachettes," which are used for making boots for workmen and soldiers.

This factory employs from 150 to 250 workmen, and its capacity is sufficient for the employment of 400. Owing, however, to the present stagnation of business it employs only 170 workmen, who have the assistance of steam-power.

This tannery belongs to one party and is worked for his own account.

The working hours are generally ten, and the pay of the workmen varies from 50 cents to \$1 per day, according to ability.

Five hundred thousand kilograms of leather are annually manufactured in Constantinople and its neighborhood, part of which is consumed in this place and the remainder is exported to Bulgaria, Roumelia, and the Asiatic provinces of Turkey.

## FOREIGN HIDES AND LEATHER.

The quantity of manufactured or raw hides imported in Constantinople from Russia and the Asiatic provinces and produced here is about 50,000 pieces.

Their quality is good, as the hides and skins, being dry salted, are sound. About 30,000 hides are annually imported from America; they come through Belgium, Great Britain, and France. There is no preference given to the hides of one country over those of another, and each kind finds its consumers where manufactured.

Manufactured skins, varnished leather, goat and calf skins are imported from France and Italy, and are used largely for making shoes for the upper classes.

## AMERICAN LEATHER.

American hides, being usually strong, are very suitable for this market, as the people generally wear strong shoes with a single sole.

The faults found with American hides are the branding of the animals, which leaves the impression of the seal upon the skin, and the many marks of the knife made in flaying the animal.

The best means for the introduction and increase of the trade in American leather in Constantinople and Turkey generally would be, to give sufficient credit to the leather dealers and manufacturers and facilities for payments. Merchants and manufacturers in this country, being always in need of facilities and encouragement from the foreign importers, naturally prefer to deal with those who will afford them the greatest facilities. Exporters from Europe to Turkey expect to give long credits and facilities of payment, but they have houses and agencies here in whom they can trust.

## COW, SHEEP, AND GOAT SKINS.

American leather is scarcely known here, and would not be appreciated unless tanned with oak bark. The prices of sheep-skins are fixed for the whole year round at about forty cents per piece. The buyer can purchase at this price the skins at all seasons, with more or less wool, obtaining an average of one and a half kilograms of wool per skin. The wool is removed with lime and the skin is sold to the tanner at about sixteen cents per piece.

The best sheep come from Bulgaria and Roumelia, and are called "kivizdjik." The next best, called "karaman," come from Anatolia (Asia). They are larger in size than the "kivizdjik," with broad tails, but are of inferior quality, although they give more wool.

The prices of goat-skins, which are principally supplied from Anatolia (Asia), dry-salted, range from 40 cents to 60 cents per skin weighing from one to two kilograms. Most of these skins are sent to Europe; the rest are dressed in the places of supply.

The prices of ox and cow hides imported from Russia and Roumania at the tanneries are for those fresh, salted, 20 cents per kilogram for cow-hides and 24 cents per kilogram for ox-hides.

Cow-hides weigh about 17 kilograms and ox-hides about 27 kilograms. The dry-salted ones are paid in proportion.

## BOOTS AND SHOES.

The only factory for making boots or shoes in any part of the Turkish Dominions is one at Constantinople, which belongs to the Ottoman

Government and is employed in making boots and shoes for the army and navy. They are wire-nailed or sewed and are made by hand-power machinery.

It is impossible to fix the shape or form of the boots and shoes worn in this country, as every place in Turkey has a different form or style. The higher classes wear fine shoes and half boots, similar to those worn in France. They are made here and can compete with the best made in Europe and America, both in style and finish. Their prices are from \$3 to \$6 at retail; there are no wholesale prices. Sewing-machines are used in all the shops, in boot and shoe making. The lower classes, especially among the Turks, wear very common and badly-shaped shoes, called "kountouras."

The Turks, especially the Government officials, use overshoes, called "galosaes," both in summer and winter, made of varnished leather. The use of these leather overshoes becomes general during the winter and rainy seasons. India-rubber overshoes are imported largely from England, Germany, Austria, and France.

The price of the varnished leather overshoes is from \$2 to \$3.

India-rubber overshoes sell for \$1 to \$2. American India-rubber overshoes could be introduced here with advantage, but should not cost more than \$1 to \$2.

Fancy shoes, especially for ladies, are manufactured in considerable quantities and compare favorably with those made in Europe and America in quality and finish. They are sold at from \$2 to \$6 a pair, according to quality.

#### FOREIGN SHOES.

A sufficient quantity of ladies' and men's shoes and boots are imported from Europe, especially from France, Germany, and Austria; but boots and shoes of American manufacture are not known here, as none are imported. The reasons given for their absence is their price, in which they do not seem able to compete with those made here or with those brought from Europe.

#### LEATHER MERCHANTS.

The most important merchant and the largest manufacture in the leather trade at Constantinople is Mr. G. Mariano.

Among the merchants in the boot and shoe trade, who import largely from Europe are "Bazar Américain," Galata; Therdossatos & Co., Galata; D. Giorgiades, Galata; S. Matzoukis, Galata; Au Bon Marché, Péra; G. Baker, Péra.

These merchants and establishments will correspond with parties who may desire to introduce American leather and boots and shoes in Turkey, and will communicate their terms and conditions and all other necessary information.

G. H. HEAP,  
*Consul-General.*

UNITED STATES CONSULATE-GENERAL,  
*Constantinople, September 24, 1885.*

## SMYRNA.

## REPORT OF CONSUL STEVENS.

## LEATHER.

The consumption of leather is not large, relatively speaking, and is chiefly confined to local production. Very little imported leather finds its way into the interior, where the quality of the local product is very inferior, showing little improvement over that manufactured in the same localities centuries ago. But in this city and its vicinity considerable improvement has been made in the tanning processes, although the leather is still far inferior to that manufactured in Europe and America.

## DOMESTIC HIDES.

About 40,000 head of cattle are slaughtered annually in Smyrna and the neighboring villages for the supply of the meat market, and their hides (with the exception of 10,000 to 15,000, which are shipped annually to Italy and France, dry-salted) are taken up fresh from the butchers by the native tanners and made into sole and upper leather. The hides are not skillfully flayed, having usually a great many cuts and gashes. The cattle of this country are small and their hides consequently light, weighing, when fresh, on an average,  $13\frac{1}{2}$  pounds each. But among the 40,000 head slaughtered there are hides weighing from  $4\frac{1}{2}$  (calves) to 28 and 34 pounds each, the latter being exceptional. They are purchased fresh from the butchers by the tanners, at an average price of \$1.85 to \$2 each. Light hides only are exported to France and Italy, and are carefully selected by a public examiner. They are dry-salted and weigh from  $12\frac{3}{4}$  to 14 pounds each. Their price is about 17 cents per pound, exclusive of charges.

The number of cattle slaughtered is small compared to the population. The lower classes observe a great many fasts during the year, and in summer they live on fresh fruit and vegetables. The Turks consume scarcely any beef; they prefer mutton. In the interior, where they form the majority of the population, and where their mode of living prevails even among the Christians, few cattle are slaughtered, the meat market being supplied with the flesh of sheep and goats.

The greater part of the leather manufactured is used for making common or cheap boots and shoes for the lower classes, but some of it is also exported to the neighboring islands and towns along the coast.

## IMPORTED HIDES.

In addition to the raw hides obtained in this country importations to meet the requirements of the tanneries of Smyrna and vicinity are made from Calcutta, Buenos Ayres, and Montevideo. These are dry-salted, wet-salted, and simply dried. They amount to about 10,000 annually, and come in direct or via Marseilles and London. Several thousand cow-hides, dry-salted, are brought here from Syria, and about 500 ox-hides, of inferior quality, wet-salted, from the United Kingdom. Between 3,000 and 4,000 buffalo hides, wet-salted, and weighing 71 to 85 pounds each, are imported from Roumelia. These are tanned in the interior and the leather is used in the manufacture of Turkish shoes. The interior tanneries are operated by Turks; those in Smyrna and neighboring villages by Greeks.

## PRICES OF LEATHER.

The sole leather manufactured in Smyrna, which, as before mentioned, is of an inferior description, sells as follows: The light quality, weighing 7 pounds per tanned hide, 25 cents per pound; the heavier, weighing 17 to 20 pounds, 26 cents per pound.

The upper leather, termed "vachettes," sells as follows: Tanned hide, weighing  $8\frac{1}{2}$  pounds, 43 cents; 7 pounds, 48 cents;  $5\frac{1}{2}$  pounds, 54 cents;  $4\frac{1}{4}$  pounds, 62 cents;  $2\frac{3}{4}$  pounds, 70 cents per pound.

## SHEEP-SKINS.

The annual production is 50,000 to 60,000. They weigh fresh from  $3\frac{1}{2}$  to  $4\frac{1}{4}$  pounds each, and cost about 30 cents per skin. With the exception of 10,000 to 15,000 shipped dry-salted, mostly to France and Italy, and purchased at 16 to  $16\frac{1}{2}$  cents per pound, they are tanned here and dyed white, gray, red, yellow, and are used to line common shoes. Ten skins sell at \$2.50 to \$3.70. Tanned and dyed sheep-skins are also imported from Syria.

## GOAT-SKINS.

From 50,000 to 60,000 arrive on the Smyrna market annually from the interior. They are dry-salted, and weigh  $3\frac{1}{2}$ ,  $4\frac{1}{4}$ , and  $5\frac{1}{2}$  pounds each. They sell, selected, at 14 cents per pound. The greater part of these skins are exported to Marseilles, but small parcels have also been shipped to the United States. Only the rejects and the heavy ones, weighing from 5 to  $5\frac{1}{2}$  pounds, are taken up by the native tanners and tanned and dyed red, yellow, &c., and are used for making Turkish shoes. The tanning and dyeing of goat and sheep skins is in the hands of the Turks.

All the kid and lamb skins produced here are exported dry-salted.

## TANNING.

The materials used for tanning are valonia, sumac, and pine bark. There are a great many tanneries in the neighboring islands. In Samos especially the industry is further advanced than in the province of Smyrna. The Samian tanners find an outlet for their leather in Roumania.

## LEATHER.

The greater part of the sole and upper leather used in the manufacture of boots and shoes of good quality for the upper classes is imported from France.

It amounts to about 2,500 bales of sole leather per annum. About 1,000 bales of sole leather per annum have been of late years imported from Italy. The leather is inferior in quality to the French, and costs about 5 cents per pound less. These bales weigh from 145 to 220 pounds each. Sardinia ships raw ox-hides to France, where they are tanned and sent to Smyrna; they are tanned "Sardes" (Sardinians.)

Prices paid for the sole leather imported from France: "Boucherie Française légère" 35 to 40 cents per pound; "Sardes," 33 to 35 cents per pound; Buenos Ayres, first, second, and third quality, 27 to 35 cents per pound. Very little third quality is imported.



The following descriptions of upper leather are imported from France: "Veaux cirés," first, second, and third choice (*i. e.*, calf leather black, first, second, and third quality), and chagrin mat lissé (*i. e.*, goat leather unpolished and sleek). Although termed "first choice," very little really first quality is brought here, owing to the high price.

The prices for French upper leather are as follows: "Veaux cirés" (calf), 59 cents to \$1 per pound; "chagrin" (goat), 64 cents to \$1.10 per pound, according to weight and quality. The lighter the leather the higher the price.

The freight for leather by steamer from Marseilles to Smyrna is 25 to 30 cents, and from Genoa 25 cents per hundred weight.

Very little upper leather is imported from Germany, the French producing a cheaper article. Varnished leather, however ("cuir verni"), is almost exclusively brought here from Germany, the French article being too dear. The price of the German article is \$14 to \$22.50 per dozen pieces; a dozen weigh from 9 to 18 pounds.

The sole and upper leather of European manufacture imported here is not all for local consumption. Smyrna importers also supply Scio, Mytilene, Rhodes, and other islands of the Archipelago, also the neighboring towns of Aivali, Adramyti, &c.

#### MODE OF PAYMENT.

Leather is one of the few articles imported into Smyrna on which very little or no credit is allowed importers. The usual terms are cash against delivery; but some manufacturers, whose article is in great demand, require a remittance to accompany all orders. Others whose article is more difficult of sale, and who are desirous to obtain an outlet, allow two months' credit from date of invoice.

#### AMERICAN LEATHER.

I cannot learn that American leather has ever found a market here. It is doubtful if any has ever been imported, or whether, if the attempt were made, it would prove successful. No country in Europe is able to compete with France in this market, and without direct steam communication between Asia Minor and the United States it is not easy to see how American manufacturers can hope to do so. With a line of swift-sailing American steamships plying between the ports of the Levant and of the United States our trade in all branches would be increased twentyfold.

Under present conditions, even, the experiment of building up a demand for American leather might be tried by sending out samples and price-lists, bearing in mind that nothing commends itself so strongly to the Asiatic mind as cheapness in price.

There are several parties established on this market who make the importation of foreign leather a specialty. I give the name of two, S. M. Pallamary and D. & N. B. Arghiropoulos.

The best policy would be perhaps to operate through European firms of import, commission merchants established here, who would act as agents to the manufacturers. They know what buyers are safe, and those from whom it would be advisable to keep aloof. Of these I may mention as trustworthy the houses of Frederick Murat, Jacob Balladur & Co., Alexander Sidi, Reggis & Belhomme, Herman Kenn (to the latter of whom I am indebted for much of the information contained in this report), Kenn & Missir, F. Blacklu & Co.

## BOOTS AND SHOES.

Formerly ready-made boots and shoes for men and children of the upper classes were imported from England; for ladies, from France. Latterly the trade has been supplied from Constantinople, where there are expert workmen, who make ladies' boots and shoes out of French materials, as good as those made in France. At present nearly all importation of ready-made boots and shoes has ceased. The Smyrna shoemakers have of late years made great progress in workmanship, and the boots and shoes they turn out from European leather are strong and elegant, and are not distinguishable from those made in Europe. Modern machinery for making boots and shoes is unknown here. Sewing-machines are employed, however, quite extensively.

The price of a pair of good gentlemen's boots is \$3.70 to \$4.10; shoes, \$2.46 to \$2.87; ladies' boots, \$2.05 to \$2.46; ladies' shoes, \$1.23 to \$1.64; children's boots and shoes, \$1.03 to \$1.23.

Boots and shoes made out of native leather for the working classes: Boots, \$2.25 to \$2.87; shoes, \$1.64 to \$2.05.

## IMPORTED SHOES.

I may mention that several hundred pair of ready-made shoes are annually imported from Malta. They are strong, thick shoes of rough make, such as are used by English workingmen. They sell for \$2.66 a pair.

American manufactured boots and shoes have never been placed on this market. Whether they could be so placed and find a profitable sale is a question to be determined by actual experiment. Labor is cheap in this country, and the prices for hand-made goods are low. Can our American manufacturers, with their improved machinery and immense facilities for production, pay freights, charges, commissions, &c., and place their goods at lower prices than those now obtained by the native workmen? As I have heretofore remarked, low-priced articles have the preference with Asiatics over high-priced of the same kind, even when the test of actual wear has demonstrated that the latter are cheaper. With direct communication, the experiment would have a chance of succeeding, and even under present conditions, ocean freights being low, something might be accomplished.

W. E. STEVENS,  
Consul.

UNITED STATES CONSULATE,  
*Smyrna, July 10, 1885.*

## MYTILENE.

## REPORT OF CONSULAR AGENT FOTTION.

Great commerce in leather, skins, and hides is carried on at Mytilene, Aivali, Moskonisi, Dikili, Pergame, Adramyti, and the Turkish Archipelago, which embraces the islands of Chio, Rhodes, Lemnos, Tenedos, and Samos. One hundred thousand dozens, or 1,200,000 pieces, of leathers and shagreens are annually imported at these places. The greatest importation of leathers is from France (Marseilles).

The leathers cost in the stores, with all the expenses, freight, commission, brokerage, and custom duties, from 36 to 40 Turkish dollars the dozen.

pieces, weighing from 5 to 8 kilograms; the shagreens cost in the stores, per dozen pieces, weighing from 5 to 8 kilograms, from 10 to 20 Turkish dollars. The best-known French leather fabrics here are those of Paul Vaillant et fils, and A. Ailland, varnished leathers.

Ten thousand dozens, or 120,000 pieces, of leather which cost in the stores, with all the expenses, from 24 to 26 Turkish dollars the dozen (12 pieces), according to the quality, are annually imported from Germany.

#### AMERICAN HIDES AND SKINS.

Salted skins from Buenos Ayres, weighing from 30 to 35 kilograms, cost at the tanneries, all the expenses paid, 80 francs the 50 kilograms. Cow-skins, also from Buenos Ayres, cost 64 and 65 francs the 50 kilograms. From 15,000 to 25,000 pieces are annually imported. Salted skins from New Orleans, weighing 12 kilograms, cost at the tanneries from 54 to 55 francs the 50 kilograms, and 100,000 skins are imported annually. Bull-skins from New York cost 36 francs to 50 kilograms, if the weight is 60 to 65 kilograms; but if the weight is 35 to 40 kilograms they cost 50 to 55 francs the 50 kilograms. From 2,000 to 3,000 pieces are imported per annum.

#### MANNER OF PACKING.

The heavy damp-salted hides and skins, every piece one packet; and the light damp-salted hides and skins, from 6 to 10 pieces in every packet.

#### DISCOUNT.

The buyers discount salt from hides and skins, damp-salted, from 1 to 3 kilograms per piece, also discount upon all the amount of moneys 3 per cent. after the receipt of the merchandise. For example, the amount of the order is \$400; one-fourth, or \$100, is paid in advance, and when all the final settlement is made they make a discount of 3 per cent., or \$12, upon the total amount.

The money is deposited in the hands of the consular officers, to whom the bill of lading is also forwarded. The receipt of merchandise is performed under the inspection of the consuls, who also collect the money and send them to their destination.

#### TRADE IN AMERICAN LEATHER.

It is necessary that manufacturers of leather and shoes should have at Mytilene, which is the central point of trade in these parts, a sample room, that purchasers may see the goods and upon them base their orders, according to the practices I have just mentioned.

#### EXPENSES AND CUSTOM DUTIES.

Freight: Half franc per kilogram from England and France until here.

Commission: Two per cent.

Brokerage: Half per cent.

Custom duties: Leather of France, 1 piaster and 27 paras per oke, viz, 8 per cent.; varnish leather, 42 piasters per dozen; shagreens, 12 piastres per dozen; damp-salted skins and hides, 8 per cent. ad valorem.

In general all the expenses charge the leather trade with 11 per cent.

## LEATHER IMPORTERS.

The persons engaged at this kind of commerce are Aristofas Franzzio and Simon-Politaki Orphans.

All the orders for America are performed via Syra (Greece) or via England.

## TANNERIES.

One hundred and twenty-seven tanneries exist at these places, with 1,720 workmen, viz: Mytilene, 18 tanneries, with 200 workmen; Aivaly, 32 tanneries, with 250 workmen; Chio, 16 tanneries, with 500 workmen; Samos, 20 tanneries, with 300 workmen; Rhodes, 10 tanneries, with 250 workmen; Pergame, 26 tanneries, with 200 workmen; and Adramyti, 5 tanneries, with 20 workmen.

Every workman receives from one-half to one Turkish dollar a day, according to his capacity.

In these tanneries are dressed hides and skins damp-salted, imported from America, and also skins and hides of every kind obtained in Turkey, viz, skins of oxen, of buffaloes, of camels, and the hides of sheep and goats.

France and Germany procure at these places dressed leathers, and the United States and Turkey ruder leathers of every kind.

In these tanneries 200,000 pieces of leather of all kinds, of the value of 150,000 Turkish pounds, are dressed per annum for home consumption.

## PRICES OF LEATHERS OF DOMESTIC PRODUCTION.

Skins of oxen and of buffaloes, damp-salted, with all the expenses, 6½ piasters per oke; skins of camels, damp-salted, cost at the tanneries 3 piasters per oke; hides of sheep, damp-salted, cost 6 to 7 piasters per piece; goat skins, damp-salted, cost 3 to 4 piasters per piece.

## TANNING MATERIALS.

The materials used in tanning are an oak apple, barks of the oak tree and the pine tree, leaf of rush somaki (a wild herb), oil of dolphin, and fat of ox.

All the said materials are obtained in Turkey.

## BOOTS AND SHOES.

The consumption of boots and shoes of luxury in these places is not large at the present time. No machinery is used in the manufacture of shoes except sewing machines. If the manufacturers of boots and shoes desire to send here a few pairs of shoes and boots for trial I will put their samples in hands of merchants engaged in this kind of trade.

M. M. FOTTION,  
*Consular Agent.*

UNITED STATES CONSULAR AGENCY,  
*Mytilene, June 5, 1885.*

## BEIRUT.

## REPORT OF CONSUL ROBESON.

## LEATHER.

The tanning and leather industry is carried on in Syria in a primitive manner, only morocco leather being tanned to any extent.

The hides and skins are obtained from Egypt principally. Their cost at the tanneries for best quality is from 13 to 16 cents per pound.

The materials used in tanning are lime, sumac, pine bark, nutgalls, and pomegranate peel. They are supplied from Syria.

There is no way of finding out the quantity of leather tanned; it is mostly consumed in the country.

Nearly all kinds of leather are imported; but neither the amount nor the value can be ascertained. No imports are made from the United States. I consider the best means for introducing American leather would be to send out competent agents with complete samples to exhibit while they study the market and see the wants of the trade.

The principal importers of leather in Beirut are Messrs. Fadoul H. Fernainé & Co., Gabriel A. Khouri, Ibrahim Rabbat, George Audé, and Ibrahim Saad, who are willing to receive consignments of leather from the United States.

## BOOTS AND SHOES.

No factories exist in Syria for manufacturing boots and shoes. The work is done generally by hand. Metal brads are used, instead of wooden pegs, mostly. From experience I can say that one pair of English or American hand-made boots will last as long as two pairs of the best made in this country.

Machinery is used to some extent in sewing the upper part of boots and shoes.

The class of boots and shoes made is light. The style and shape principally worn now are sharp toed, with low heels, much the same as those worn in England.

The output is chiefly consumed in the interior of the country.

Boots and shoes are mostly imported from France. No American boots and shoes are imported.

## MISCELLANEOUS.

Boots and shoes should be wrapped in paper separately; leather should be rolled, and each piece carefully wrapped in paper, the same packed in strong boxes lined with tin.

I am convinced that a good trade could be established in Syria in American leather if competent agents with samples would visit the country and canvass the leather trade.

JOHN T. ROBESON,  
*Consul.*

UNITED STATES CONSULATE,  
*Beirut, October 2, 1885.*

**CHINA.**

Consul Isaac F. Shepard, Hankow.  
 Consul Charles Seymour, Canton.  
 Vice-Consul-General George H. Scidmore, Shanghai.  
 Consul W. E. Goldsborough, Amoy.

**TARIFF.**

The import duty on leather is 4 mace 2 candarins per hundred catties, equivalent to 55 cents for 133½ pounds.

**HANKOW.***REPORT OF CONSUL SHEPARD.***LEATHER.**

The extent of the leather industry is by no means large, the total export from Hankow to other native ports for the entire year 1884 being only 307.05 piculs, valued at 7,784 taels (40,940 pounds, valued at \$9,741.92, the Haikwan tael being estimated at \$1.38 in gold). All the balance produced is for domestic demand, principally consumed in making boots and shoes for the lower orders of the middle classes and the coolie class.

**HIDES AND SKINS**

are of native product, and in the raw, dried state are brought to this market in great quantities for foreign shipment. In 1878 I called attention to this fact, suggesting that it might be a possible source of profitable supply for our American leather manufacturers.

I stated the export of the year under consideration to be 48,457 piculs. A steady growth in amount is observable, for in 1884 the export was 65,149 piculs. A good proportion of these hides go to America, but it is impossible for me to give statistics, as they are all sent by river steamers to Shanghai, and invoiced and forwarded from that port.

In 1878 hides could be bought here on an average of about 5 taels per picul. Now the demand for shipment has raised the value to about 11 taels per picul, or more than double the cost then, and still the demand is unabated.

**THE METHOD OF TANNING**

as pursued in this region is not dissimilar in its earlier stages from that pursued in the United States. A vat is prepared—generally sunk in the ground—capable of holding about 30 hides. They are covered and left to soak in a solution of lime, called by the natives “milk of lime.” They are kept in this bath sixteen days and upwards, according to the season, cold weather requiring more time than warm. The hair is then loosened, and then the hides are taken singly, spread upon a bench, and thoroughly put through a scraping process to remove the hair and the offal from the flesh side. The tool used for this is of peculiar construction. It is shaped like a capital letter H, one side being a steel or iron blade, and the other the handle, the cross-bar merely connecting them. The blade is about a foot in length, and the handle two or three inches less. The workman places the handle against his breast for greater ease and power, and with this forcible application of the tool to the hide the hair is speedily removed. The hide is then turned with the flesh side up, and by a similar manipulation all offal is removed, and the hide is reduced to a quite uniform thickness. A thorough washing follows, and the skin is cleansed of all remains of the lime. The refuse hair is saved for agricultural purposes, and the scrapings of the flesh side are boiled down for glue.



After the cleansing the hides are subjected to a vigorous rubbing with a heavy sandstone, or other like article, until both sides are thoroughly smooth. When this process is completed a strong decoction of nutgall is sprinkled over the green leather, and then the tanning is commenced. The nutgalls are boiled in water over a slow fire until they become liquefied, and the strained liquor furnishes all the tannin used. Nutgalls are abundant in the regions furnishing exports to Hankow, and considerable quantities are sent to the United States. There were received at Hankow from other native ports in the last year 713.75 piculs, as entered at the foreign customs.

The next process to which the skins are subjected is a peculiar one. A sort of furnace is built underground, with an opening in circular form, from which a dense smoke issues when the fuel is fired. The fuel required is either wheat straw or a species of grass gathered from a mountain side. Nothing else, it is believed, will answer the required purpose.

During seven days the hides are passed back and forth through the smoke issuing from the furnace, and, unless it is to be blacked, the tanning of the leather is thus completed. If it is to be blacked, a liquor of vinegar in which iron has been left to corrode, or a solution of nutgalls and copperas, is ordinarily used, but at times simple lampblack is used.

The yellow-brown color given to the leather by the smoking process is, however, considered to be of remarkable beauty, and is therefore greatly preferred by manufacturers and wearers.

The leather is made soft by sprinkling it with saltpeter during the smoking, accompanied by repeated and violent kneading of it, drying in the air, instead of by exposing to the sun. The strength of the solution of saltpeter as applied is said to be kept secret, no apprentice being initiated to the knowledge of it until he has served for three years.

Fresh hides are thought to make the best leather, and the average price as finished is about as follows for the different qualities, viz: Common water buffalo leather, 2 taels per picul, or about 12 cents per pound; cow or ox hides, 16 cents per pound; leather of asses' skins, \$2 per pound.

#### AMERICAN AND OTHER LEATHER.

The foregoing will suggest an answer to all other topics in the circular. No foreign leather is received, nor is any native exported. There is no demand for American boots and shoes, nor any way of creating such demand, except by the slow process of change in national prejudice which only long time will influence.

#### BOOTS AND SHOES.

No large tanneries exist, nor is there any manufacture of boots and shoes on an extensive scale. The shoemaker sells his own work and is seldom aided by more than one or two journeymen, oftener by none at all.

The better classes do not use leather for foot-gear, but wear boots and shoes made of satin, with felt bottoms. No such thing as a foreign boot or shoe is ever worn by a native in this region, except now and then a vulcanized-rubber article made in form and shape to imitate, as near as may be, the native article that it supplants. The sale of these is very limited, so great is the prejudice against foreign articles.

ISAAC F. SHEPARD,  
*Consul.*

UNITED STATES CONSULATE,  
*Hankow, July 31, 1885.*

## CANTON.

## REPORT OF CONSUL SEYMOUR.

The great mass of natives in Canton and Southern China go barefooted throughout the year, and the better dressed class of natives wear shoes or boots in which very little leather is used, and then only as soles, which are also of felt and wood.

When the laborer is at work that requires protection for his feet against rough ground or stones, the article worn is usually in the form of a sandal, and sometimes it is merely a piece of board of the length and width of the foot, to which it clings by means of a strap fastened like a loop to the board sole, and passing over the foot below the instep. Another kind of sandal is made of the coarse bark cordage, fastened to the foot by strings.

The middle class of natives, such as shop-keepers, house-servants in employ of "well-to-do" natives and foreigners, generally wear a low shoe, the sole of which is wood, or felt, or leather, the sides and tops being of cloth, in which bright-colored figures are worked.

If a more elaborate article is used in the form of a boot, the leg of the boot is usually of cotton cloth, sometimes white, often blue or black.

The officials and mandarins of some pretensions adopt a higher style of boot, made of black silk or woolen cloth, felt or leather soles, and being sufficiently high and loose in the legs to admit of carrying papers, letters, manuscript, or documents which are to be referred to in connection with the business on which they are engaged.

About a dozen shoemakers are employed in Canton to make and repair shoes for foreigners, who wear leather.

British and French shoes are sold in Hong Kong.

Leather is not mentioned in the published lists of imports at Canton, or in China, and is not among the exports of China, although I find Canton exported leather in 1884 to the value of about \$250,000.

When boots and shoes are mentioned among imports or exports in Chinese customs returns it must be understood they are of the kinds herein described; and leathern boots and shoes are not used.

CHARLES SEYMOUR,  
*Consul.*

UNITED STATES CONSULATE,  
*Canton, China, June 19, 1885.*

## SHANGHAI.

## REPORT OF VICE-CONSUL-GENERAL SCIDMORE.

The leather industry in China is an unimportant one, many of the requirements to which leather is put in western countries either not existing here or being supplied by rudely prepared native production.

During the year 1884 the net total import of foreign leather into Shanghai amounted to 35 tons, valued at \$45,640. More than one-half of this importation came from Hong Kong, and was probably of British colonial manufacture.

Aside from the shoes worn by the foreign residents in China, which are custom-made by Chinese shoemakers, there is no demand for goods under this heading.

The Chinese have their own style of shoes, which are made of cloth, the soles in some cases being strengthened by a strip of native prepared leather, and the peasantry who are unable to afford this class of shoe wear straw sandals or go unshod.

The trade possibilities for shoe and leather goods upon the Shanghai market will not, in my opinion, repay for any extensive outlay or trouble spent by American manufacturers or dealers in placing their goods thereon.

GEORGE H. SCIDMORE,  
*Vice-Consul-General.*

UNITED STATES CONSULATE,  
*Shanghai, August 4, 1885.*

## AMOY.

Consul W. E. Goldsborough, Amoy, transmits to the Department, under date August 3, 1885, the following statement prepared by Mr. J. Newbury, of the custom-house, at that place:

There is little that can be called leather industry at Amoy.

The boots and shoes worn by Chinese are made for the most part of cloth, silk, satin, cotton, &c. What little leather is required is made locally of hides which come from Manila and Singapore, and are tanned with mangrove bark, which comes from Singapore and Penang.

The quantity of leather manufactured is too small for statistics.

No foreign boots and shoes are imported at Amoy except a few dozen pairs per annum for the use of the foreigners at the port.

Foreign boots and shoes are duty free on import or export.

J. NEWBURY,  
*Examiner.*

CUSTOM-HOUSE, Amoy, July, 1885.

## JAPAN.

## REPORT OF CONSUL PATTON.

## TARIFF.

On leather and manufactures, 5 per cent. ad valorem.

## LEATHER.

It can be truly said that the shoe and leather industry of Japan and particularly in this consular district is yet in its infancy; but considering the fact that it has only been introduced within the past few years, and that, too, among a people who for ages past have used the straw sandals (*icaraji*) and *zori*, and wooden clogs (*bokuri*), I regard the result as very encouraging.

The manufacture of leather in this district is in the main confined to Osaka, although tanneries are established and operated in other provinces, principally in Kioto, and in Hiuchi Mura, Kawabe-gori, Settsu in this *ken*.

The hides and skins used in these tanneries are obtained through the agency of the Toiyas, or wholesale merchants, who secure the leather manufactured therefrom in return and dispose of it to the various industries in which leather is more or less used.

In some localities 80 per cent. of the entire product is manipulated by the Toiyas to his own pecuniary advantage, leaving only 20 per cent. to come to the tanneries from first hands direct.

The price of hides and skins varies according to locality, and the difference is quite marked; for instance, at the tanneries in this *ken* at Takagi Mura, Shikito-gori, Harima, the prices during 1884 were as follows:

	Yen.
First-class bull and cow hides, each .....	2.76
Second-class bull and cow hides, each .....	2.40
First-class horse-hides, each .....	1.50
Second-class horse-hides, each .....	1.20

At Osaka the prices as reported are much higher: Bull hides command 4 yen each; cow hides, 2.80 yen each; and calf hides, 80 sen each.

TANNING MATERIALS.

The materials used in tanning are lime, bark of the *kashiwa* live oak, bark of the *shi* tree, another species of live oak, *asenyaku*, pigeons' dung, *giuro*, and whale oil. The bark of the *kashiwa* is produced in Mima-saka and Bungo, and the price ranges, according to demand and supply, from 50 to 80 sen for 10,000 *mommies*, equal to 62½ pounds. The bark of the *shi* tree is produced in Kie, and the price ranges from 40 to 60 sen per 10,000 *mommies*.

The lime is produced in Tosa and Bungo, and costs 32 sen per picul (133½ pounds). The pigeon dung is produced in Osaka at a cost of 75 sen per 10,000 *mommies*. The *giuro* is also produced in Osaka, and is furnished at 8.50 yen per picul, while the whale oil is produced in Kie, Hizen, and Nagato, and furnished for 8.50 yen per picul.

STATISTICS OF THE INDUSTRY.

According to the statistics furnished me there were tanned during the years 1883 and 1884, 96,310 hides and skins, apportioned as follows: Kyoto fu, 10,500; Osaka fu, 17,810; Hiogo ken, 68,000.

The leather thus manufactured is consumed in Osaka, Kyoto, Hiogo, and Tokio, in the manufacture of leather boxes, traveling bags, military and naval equipments, saddles, harness, tobacco pouches, pocket-books, boots and shoes, straps for sandals, and various other articles.

Aside from what has been manufactured, the following tabulated statement of the imports in 1883 and 1884 will give detailed information as to all imports of sole leather, from whence imported, quantity, and value.

Whence imported.	1883.		1884.	
	Pounds.	Value.	Pounds.	Value.
United States.....	152,384	\$37,358 38	406,700	\$112,213 65
East India and Siam.....	117,285	23,636 03	71,869	11,952 83
France.....	8,485	1,181 15	702	460 44
England.....	62,958	10,448 82	22,012	4,402 64
China.....	76,342	14,760 05	48,626	8,167 61
All other countries.....			479	219 60
Total, 1884.....			550,888	137,416 77
Total, 1883.....			417,454	87,404 53
Net increase over 1883.....			133,434	50,012 24

Osaka and Hiogo's proportion of above.

Year.	Quantity.	Value.
	Pounds.	
1883.....	109,548	\$28,302 23
1884.....	78,098	21,235 09
Decrease, 1884.....	31,450	7,067 13

From the foregoing tabulated statement it will be observed that the importations from the United States during the past year have increased most wonderfully both in quantity and value, while the importations from all other countries show a marked decrease.

This certainly speaks well for the quality of leather manufactured in the United States.

In my annual trade report, referring to the article of leather, I expressed the opinion that the Pacific States alone should supply the entire demand for this and several other articles of imports therein mentioned.

The following comparative table showing the quantity and value of all other kinds of leather imported during the years of 1883 and 1884 will be of interest:

Whence imported.	1883.		1884.	
	Pounds.	Value.	Pounds.	Value.
United States.....	65,364	\$19,293 78	88,290	\$30,381 57
England.....	34,798	18,531 09	41,896	20,962 24
France.....	24,909	17,775 07	16,010	13,303 07
Germany.....	7,849	5,884 79	9,778	9,461 47
China.....	184,604	62,808 20	209,686	84,202 04
East Indies.....	125,321	45,800 28	312,416	78,514 41
Russia.....	5,828	2,380 00		
Total, 1884.....			678,076	231,824 86
Total, 1883.....			458,673	172,473 21
Increase during 1884.....			219,403	\$59,351 59

*Osaka and Hlogo's proportion of above.*

Year.	Quantity.	Value.
	<i>Pounds.</i>	
1883.....	178, 654	\$58, 244 43
1884.....	326, 737	108, 132 50
Increase.....	218, 083	\$49, 888 07

The increase of the imports from the United States of all other kinds of leather, as exhibited in the foregoing table, is not so marked as in sole leather; yet it shows a very healthy condition.

The character of all leathers manufactured in the United States is regarded as first class; in fact, far superior in quality to the importations from any other country. The only fault found with it is that it costs more than that manufactured in East Indies, China, or even England.

The importations from China and East Indies, as a general rule, are inferior in every respect, being very spongy, without firmness, and lacking in every quality essential to durability.

It is used on account of its cheapness; it certainly has nothing else to recommend it.

**BOOTS AND SHOES.**

Among a people who have for centuries been accustomed to the use of the sandal of straw and wooden clog (*Waraji*, *zori*, and *Bokuri*), it cannot be expected that the customs and usages of their ancestors would be discarded at once and those of another people adopted. The process must of necessity be gradual and very slow. In the large cities and among the younger class the European dress has been adopted, including boots and shoes. This, however, is confined to those holding positions in the customs service or among the local authorities and foreign business houses.

The first boots and shoes manufactured in this district was in May, 1878; from that time until July 1, 1885, this one establishment manufactured 8,550 pairs of shoes and 4,275 pairs boots. There are now five establishments operated wholly by Japanese, which have from date above mentioned to July, 1885, manufactured in all 14,320 pairs shoes and 4,790 pairs of boots. These establishments are all located in Kobe, and give employment to 27 persons.

At Kioto there are twenty manufactories, operating on an average 6 men each. In the city of Osaka ten factories are in operation, giving employment to 144 men. No statistics as to quantity manufactured can be obtained.

During 1882 boots and shoes were imported amounting to 4,786 pairs, valued at \$9,177.44, of which Kobe received 466 pairs, valued at \$1,128.50.

The following comparative tables, showing the importation of boots and shoes, the countries from whence imported, quantity and value, have been carefully compiled from the customs returns, and are authentic.

Whence imported.	1883.		1884.	
	Pairs.	Value.	Pairs.	Value.
United States.....	1,787	\$3,725 98	3,728	\$8,616 12
England .....	1,179	2,269 26	1,665	3,342 58
France .....	337	657 84	431	936 62
Germany .....	53	145 16	39	112 30
All other countries .....	7	25 60	4	16 00
Total, 1884 .....			5,867	11,023 62
Total, 1883 .....			3,363	6,823 84
Increase, 1884 .....			2,504	4,199 78

*Osaka and Hiogo's proportion.*

Year.	Pairs.	Value.
1883.....	745	1,268 98
1884 .....	620	\$1,322 76
Decrease, 1884 .....	125	

Here, as elsewhere in the statistics submitted, the United States shows greater increase in quantity and value in this line than any other country.

It will be noticed that while the importations to this port show a decrease in quantity of 125 pairs, the valuation of that imported during 1884 shows an increased valuation of \$53.78. This would indicate that a better class of goods is demanded. Shoes manufactured here are generally of small sizes and low cut, similar in appearance to the Oxford tie. Some gaiters are manufactured, however, with elastic in the side. I have thought it might perhaps be of some interest in this connection to include in my report a brief reference to the traffic in hides and skins in this district, to show the rapid development within the past few years. During 1882 the total importation of hides and skins into Japan from all sources was 10,777 pounds, valued at \$1,196.34. Of this amount 9,992 pounds, valued at \$1,035.84, were entered at this port. For the convenience of reference and comparison, I have prepared the following comparative statements, showing the importations, countries



from whence imported, quantity, and value during the years 1883 and 1884.

Whence imported.	1883.		1884.	
	Pounds.	Value.	Pounds.	Value.
United States.....	12,745	\$919 86		
China .....	18,293	1,335 00	266	\$24 00
East Indies.....	5,156	449 00	14,657	812 85
Coroa.....			1,641,565	157,257 95
Russia.....			640	62 40
All other countries .....			2,060	171 80
Total, 1884.....			1,659,188	158,329 00
Total, 1883.....			36,194	2,703 36
Net increase of 1884 over 1883.....			1,622,994	155,625 64

*Osaka and Hiogo's proportion of above.*

Year.	Quantity.	Value.
	Pounds.	
1884.....	163,033	\$14,441 13
1883.....	23,113	1,705 36
Increase.....	139,920	12,735 77

In order that full and satisfactory comparisons be made and definite results obtained, the foregoing table of imports should be examined in connection with the following table of exports during same period:

Country exported.	1883.		1884.	
	Pounds.	Value.	Pounds.	Value.
China.....	Not given.	\$48,675 80	1,224,233	\$109,035 50
England.....			301,198	23,300 60
France.....			768	54 00
United States.....			22,820	1,134 80
Germany.....			14,338	1,131 00
Total, 1884.....			1,563,357	134,655 90
Total, 1883.....			No report.	48,675 80
Increase in value, 1884.....				85,980 10

*Osaka and Hiogo's proportion of above.*

Year.	Quantity.	Value.
	Pounds.	
1884.....	1,336,716	\$120,598 60
1883.....		41,695 80
Net increase, 1884.....		78,902 80

From the foregoing it will be observed that during 1883 the excess of exports over imports in value was \$45,972.44, while during 1884 the order of business was reversed, and the excess of imports over exports was valued at \$23,673.10.

It will be understood that these figures include the total imports and exports of Japan.

For the port of Osaka and Hiogo the following summary of the several articles of import is submitted:

Sole leather imports.....	\$21,235 09
All other kinds leather .....	108,132 50
Boot and shoe imports .....	1,322 76
Hides and skins imported .....	14,441 13
<hr/>	
Total value of leather shoe-hides imported during the year.....	145,131 48
Total value of hides and skins exported .....	120,593 60
<hr/>	
Excess in value of imports, 1884.....	24,532 88

In all the shops or factories the work is performed by hand, no machinery being used except an occasional Singer sewing machine. Very few boots or shoes are made in advance of orders. What few are on hand are such as have failed to suit the customer, and consequently rejected. The supply, however, is limited, even as to these.

Boots and shoes of American manufacture have heretofore given good satisfaction. The quality of the leather is superior, and the style of manufacture better suited to the tastes of those making experiments in use of European customs than those imported from other countries. Nine out of ten pairs manufactured here to order are of low cut, either with ties or elastic on the sides, for convenience of removal upon entering houses, where usage requires the sandal, clog, or shoe to be left at the door.

For the American manufacture, the boot and shoe trade at present does not present a favorable aspect.

The sales would be slow and the profits small, two things which are not pleasing to the average American manufacturer.

The people are disposed to manufacture their own shoes, the prices to Japanese being about one-half what a foreigner would have to pay. In a community like this, where the entire foreign population of the district is only about 400, including women and children, the character of the goods introduced must of necessity, in order to compete with the article manufactured, be of the very cheapest quality.

American manufactures are too good for this market. As a general rule, one pair of American shoes would outlast two pairs of those manufactured here. Further information as to the details connected with the importation and sale thereof can be obtained from Messrs. Walsh, Hall & Co., I. D. Carroll & Co., Meyer & Co., the China and Japan Trading Company, and the American Trading Company, all reliable American firms engaged in the import and export trade at this port. The import duty on leather and boots and shoes is 5 per cent.

The duties are uniform and are assessed alike on the manufactures of all countries.

T. McF. PATTON,  
Consul.

UNITED STATES CONSULATE,  
*Osaka and Hiogo, August 26, 1885.*

**INDIA.****• REPORT OF CONSUL FARNHAM.**

The leather industry here consists chiefly in tanning goat and sheep skins at the Mahim tanneries, about five miles outside of the city. About 3,600,000 goat and sheep skins are tanned annually, the greater part being exported to England and sold at the monthly skin sales in London.

Lime, bark, galls, and oil are used in tanning.

The leather imports from England and France are comparatively small, merely enough for local consumption. Ready-made shoes and boots are imported from England and France. No leather, manufactured or unmanufactured, is imported from America. A good opportunity to make the American goods known will be the International Exhibition to be held about November 15, 1887.

Budham Pile Co. (limited), Dennett & Co., Watson & Co., Treacher & Co., are importers of leather and of boots and shoes.

There is no duty on leather, manufactured or unmanufactured.

B. F. FARNHAM,  
Consul.

UNITED STATES CONSULATE,  
Bombay, June 16, 1885.

**ARABIA.**

The natives here do not wear shoes but sandals, which are imported ready made from Zanzibar. There is no leather to speak of used in this country.

LOUIS S. MAGUIRE,  
Consul.

UNITED STATES CONSULATE,  
Muscat, June 16, 1885.

**CEYLON.****REPORT OF CONSUL MOREY.****TARIFF.**

On leather and manufactures, 6½ per cent. ad valorem.

**HIDES AND LEATHER.**

The tanning industry of Ceylon is confined to four towns, viz, Colombo, Kandy, Galle, and Jaffna. Their participation severally in it is proportionately about, Colombo, 50 per cent., Kandy, 35, Galle, 12, and Jaffna 3 per cent. of the whole.

The total annual output is about 65,000 neat-cattle hides (buffaloes and cows) and perhaps 15,000 to 20,000 small skins, principally sheep; which, owing to peculiarity of breed, are not very dissimilar to goat-skins.

All of the raw material is obtained locally, and the cost, delivered at the tannery, is about four cents per pound for green hides, fresh from the slaughterer. The leather when made is sold for about fifteen cents per pound.

The period of immersion is usually, five weeks for buffalo, three weeks for cow hides, and one week for sheep-skins; but shorter periods are often allowed; consequently the leather, though excellent in appearance, is not thoroughly cured; and the thick sorts, when cut, show an interior section quite raw. When, therefore, this leather is used, particularly for harness, it stretches inordinately; and then, becoming brittle, falls to pieces.

A set of ordinary country harness does not last over two years, unless sparingly used and carefully treated.

Another cause of early decay in some country leather is the native practice of so elaborately branding draft cattle that their exteriors appear to be covered by a huge scroll; which being produced by the application of hot iron vitiates the hide

for leather-making purposes. This fact is so well understood that tanners generally avoid, as much possible, draft-bullocks' hides, confining their operations principally to buffalo and cow hides. Buffaloes are not branded at all, and cows to no great extent. The leather of the former, when well tanned, is most esteemed, especially for soles and harness, and, as a rule, it fetches a higher price than ordinary cow hides.

The hide of the much-branded draft-bullock, however, is in demand abroad for (I am assured by the shipper here) the manufacture of gelatine; accordingly there is an annual export to Europe of about 160 tons, at 2,000 pounds per ton, salted hides, valued officially at \$43,000, say twelve cents per pound f. o. b.; though this seems a high valuation, since the prime cost is about 6 cents per pound. About 100 tons, principally of sheep and goat skins, are exported annually to continental India; and the total value of all hide shipments, to all countries yearly, is about \$72,500.

About three hundred horses die here yearly, but no use is made of their skins, probably because those animals were so low in condition when they died that their hides were worthless.

All tanning materials are obtained in abundance locally; and they consist of the following barks, &c., viz: Ranawara, S. (*Cassia anna cantata*, L.), \$0.01½ per pound. Kadol, S. (*Rhizophora macroneta*, L.), 1 cent per pound. Caju-nut-tree bark, 2 cents per pound. Gall-nuts about 1 cent per pound. None of these articles, except gall-nuts, are exported; though samples of bark were sent to Europe last year. About 918,400 pounds of gall-nuts were shipped to India, Australia, and Great Britain in 1884, to the value of \$11,500.

All the leather tanned in the island is used locally, only a little having been sent away experimentally. A trial shipment of the small variety (sheep and goat skins) went to New York some years ago, with poor results; owing, I believe, to some mistake having been made there in handling the consignment.

The leather imports in 1884 amounted in value to \$3,341, which is much less than in former years, owing probably to the cheapness of the local article, bringing it more within the means of consumers in these days of financial depression, for the cost of English leather here is 35 cents per pound, against 15 cents for country leather; and the harness-makers and chucklers (shoemakers) being expert in giving the Ceylon article almost the exact appearance of the European, most people are now content to patronize the home-made stuff.

#### INDIA LEATHER.

Two-thirds of the imported leather comes from India, and, being better cured, is superior to that made in Ceylon. Formerly there were large tanneries in the Madras Presidency, one especially at Hoonsore in Mysore, where large herds of the celebrated "Amrut-Mahal" (milk palace) cattle are bred. When I was there in 1863, an enormous business was being done; but on my next visit in 1875 the tanning operations were largely curtailed; and now, I believe, the establishment has almost suspended operations.

The leather from the Hoonsore tannery was as good as most English leather; and considerable quantities of it were sent to Europe. The leather now brought here from India is better than that made in Ceylon, and sells for about twenty cents per pound. As however, the total amount imported only amounts in value to about \$2,000, it seems unlikely that any considerable quantity of American leather could be introduced here profitably. Neither would it appear that American leather could compete profitably with English; as, only the very highest grades of the latter are salable here, and the value of the import is less than \$1,500.

#### BOOTS AND SHOES.

The country abounds in shoemakers, who work entirely by hand, there being no shoemaking machinery whatever in the island. A large number of Portuguese descendants work at the trade, and many "chucklers" from India. The workmanship is fairly good and marvelously cheap; especially with respect to men's and boys' boots and shoes, which are hawked about the streets at 4 rupees (\$1.60) per pair for men, and 2 rupees (80 cents) for boys; though strangers in the island are asked at first to pay considerably more. Here let me describe a pair of number 5's now before me. They are high-countered shoes, laced in front through eight brass eyelets (four on a side), kip uppers, quarter-inch soles, seven-eighths-inch heels, double rows of brass pegs, and all rough edges neatly bound with kid, joinings double and somewhat ornamentally stitched—price 80 cents, delivered at the door. Their equal could not be bought retail anywhere in the United States under \$2—perhaps not so low. The same style of goods, in boots with elastic sides, would cost an additional 40 cents, total \$1.20, or at most \$1.50; and the larger sizes, say from 6 upward, of kip or split leather, would be from 50 to 100 per cent. more all round.

These goods are all hand-made and not greatly inferior to English, which cost here 100 per cent. more.

In ladies and children's boots and shoes the local craftsmen seem unable to compete with the European article, accordingly there is some importation from England, and the prices are :

	Per pair.
Ladies' stout kid boots, long legs, laced in front .....	\$3 00 to 5 00
Elastic sides.....	2 00 to 3 00
Ladies' kid shoes, patent leather fronts.....	1 75 to 3 00
Ladies' glazed-kid shoes.....	1 75 to 3 00

Children's shoes, promiscuous prices.

The other description of imported boots and shoes are :

	Per pair.
Men's long legged field-boots.....	\$6 00 to 8 00
Men's stout estate shoes, hob nailed or brass screwed.....	4 00 to 5 00
Men's dress shoes, kid or calf.....	3 00 to 5 00
Men's patent-leather pumps .....	2 00 to 3 00
Men's elastic-sided boots, patent leather, kid tops .....	3 00 to 4 00
Cloth tops .....	3 00 to 4 00
Plain leather .....	2 75 to 4 00
Men's elastic-sided shoes, plain leather.....	2 50 to 3 00

To the above prices may be added 50 per cent. for goods of an ultra fashionable type.

The total value of boot and shoe imports in 1884 was about \$17,000, \$16,400 of which was from Great Britain, and the balance mostly from India.

After carefully considering the subject, I could not advise any one to send either leather, boots, or shoes from the United States to Ceylon for sale; for the people now dealing in such goods appear to have larger stocks on hand than they can sell readily or profitably. I think it possible, however, for American harness to be successfully introduced to some extent, especially the breast-plate style, for light draft, in sizes to suit horses and ponies from 12 hands up to 15-3; and I consider Messrs. J. Anwardt & Co. and Messrs. Jansen & Co., both of Colombo, to be good people to consign to. The exporters, however, would need to see their way clear for a profit out of prices varying from \$15 to \$30 per set, according to size and quality, after adding 20 per cent. to the home cost, to cover transit and other incidental expenses. I believe the "Anchor Line" of steamers book freight through from New York to Colombo, via England: and if so that would be the best medium of conveyance.

#### MISCELLANEOUS.

The duty on leather and leather manufactures is 6½ per cent. ad valorem; and there is no discrimination nor other obstacle to the trade from America, except a well-stocked market and low prices. These, however, seem to me to be sufficiently deterrent of themselves to prevent a profitable trade; for the cheapness of the local product in its various forms leaves small room for competition from anywhere abroad. This is clearly exemplified in the amount of present imports in this line, their value alone showing how little they are in request; and my recommendation about harness is given in doubt and based mostly on the novelty of the enterprise; for fair country harness, with brass English mounts, costs only \$12 per set here, and but for its want of durability, together with some faults of clumsiness, it would answer most people's requirements perfectly, whereas it now only does so tolerably well.

#### NOTE.

In compiling this report I have received much valuable information from the under-noted gentlemen, to whom my thanks are due for their disinterested courtesy, viz: William Ferguson, esq., F. L. S.; W. W. Mitchell, esq., of Messrs. Darley, Butler, & Co., export and import merchants; John Crawford, esq., late superintendent Matukiliga Mills; H. T. Perera, esq., the largest tanning proprietor in Ceylon; E. J. Koelman, esq., importer of English leather, &c.; John Peries, esq., importer of English leather, and harness-maker. Also, most of the boot and shoe dealers in Colombo.

W. MOREY,  
Consul.

UNITED STATES CONSULATE,  
Colombo, Ceylon, June 19, 1885.

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**AFRICA.****MOROCCO.***REPORT OF CONSUL MATHEWS.***TARIFF.**

Ten per cent. ad valorem.

The exports and imports for the last year were:

Articles.	Exports.		Imports.
	Quantity.	Value.	
Hides .....	2,367	\$33,525	
Goat-skins.....	37,791	478,220	
Leather.....	30	2,000	86 bales, value \$2,046.
Filali leather .....	278	3,356	

The skins and hides are obtained from the slaughter houses in the country. Sometimes Buenos Ayres hides are imported from France and England, but they are only used for sandals in the raw state. The domestic hides that are tanned in the country are only used for making Moorish slippers for local use and for shipping to Alexandria and Algeria.

The materials used in tanning are imported from England and France. There are no statistics to show the manufacture or local consumption.

No American leather is imported, nor have American shoes ever been introduced. The Spanish shoes are so very cheap and specially adapted to the wants of the country as to exclude all other competition. There is no probability of a fair sale for the American goods.

The sandals and slippers worn by all the natives are yellow morocco leather for males and red for females.

FELIX A. MATHEWS,  
*Consul.*

UNITED STATES CONSULATE,  
*Tangier, May 30, 1885.*

**SENEGAMBIA.***REPORT OF CONSUL STRICKLAND.***OBSTACLES TO TRADE.**

There are probably no articles of American leather manufacture used in Senegal at present. About 1878 an American merchant named Mathew Bartlett sent two or three small invoices of light fancy shoes and slippers which sold well, but on his retirement from the business, which happened two or three years later, all such shipments were discontinued.

The only American merchant now doing business regularly in Senegal is F. C. Butman, esq., No. 34 Central street, Boston. All others have



either failed or been driven off by European competition. Mr. Butman, for reasons which will appear hereafter, has hitherto made no shipments of articles of leather manufacture.

There is at present no demand for leather in Senegal, but of shoes the consumption is quite large and rapidly increasing. All kinds are in request, but light fancy shoes are most wanted.

All sizes are wanted, but for the most part they should be medium, inclined to small. Very long heeled plantation feet are not prevalent in this part of Africa.

#### RECIPROCAL TRADE NEEDED.

The principal reason why shoes cannot with advantage be exported from America to Africa lies in the fact that excepting to a very limited extent, as in this case of hides and rubber, Americans cannot take the produce of the country in payment. American vessels consequently earn scarcely any freight, so that an outward voyage only can be counted on to pay all expenses and yield a profit. American merchants under such conditions can only handle at a living profit a few staples, generally not much manufactured, that are peculiarly American, such as tobacco, lumber, petroleum, and some kinds of provisions. It is next to impossible, without taking produce in payment as Europeans do, to compete successfully against goods of European manufacture. Our merchants are now obliged to deal only with the large European houses who can give bills in payment, and most of these large houses being always stocked with goods of European manufacture which they are compelled to receive from their principals in Europe, are of course keenly interested to keep competing American goods out of the market.

The principal production of Senegambia is peanuts, of which 7,000,000 bushels are said to be exported to Europe annually. For a few years subsequent to our civil war a portion of this peanut trade, in spite of our high tariff, was diverted to the United States. All our vessels then carried full and paying cargoes homeward, which enabled our merchants to deal with traders of small means, and introduce new articles in spite of the opposition of the large European houses. Senegal ports were at that time much frequented by American vessels, and the business for all engaged in it, including merchants, ship-owners, agents, manufacturers, and supercargoes, was thriving. But in time the wide margin of 32 cents per bushel afforded American nut-growers by our protective tariff had its effect, and Africans disappeared gradually from our markets. Simultaneously our West African trade began to languish for lack of return cargoes, until one American concern after another was obliged to withdraw with their vessels from a business which under the changed circumstances could no longer yield them a living profit. Whether the nation has on the whole been a gainer by paying for the creation of a nut monopoly within its borders at the expense of many other important industries it is of course not my province to determine. I simply state the facts which come under my observation, because they have a practical bearing on the questions I am expected to answer. Probably, however, the American nut-growing interest is now so well established that if the duty which has fostered it were repealed tomorrow the receipts of the farmers would suffer no sensible diminution, while if American merchants could only be enabled to ship enough of nuts to ballast their vessels it might give them a hold of this market sufficient to control it for all articles in the manufacture of which Americans are supposed to excel.

## SHOES.

Perhaps I should state before closing that the shoes now current here are of French origin, and no dearer than ours. But they lack the style and finish that ours have and on strictly even terms I am sure they could not compete. It is also worthy of note that children's shoes are getting to be used in considerable quantities, which perhaps more than any other circumstance indicates that there will soon be an increase in the quantity wanted. The prevalence of chigres, a species of flea which has lately been imported from the West Indies, in the toes of the natives when exposed, is also having considerable influence to compel the wearing of shoes among them.

Finally, there seems to be no reason but the one referred to why American shoe dealers should not find as profitable a market here for their wares as in any other foreign country of like population and resources. It will perhaps be a century before the Senegambians begin to manufacture shoes for themselves, but their purchasing disposition and capacity are improving every day.

PETER STRICKLAND,  
*Consul.*

UNITED STATES CONSULATE,  
*Goree-Dakar, June 3, 1885.*

## LIBERIA.

## REPORT OF CONSUL-GENERAL SMYTH.

## TARIFF.

An ad valorem duty of 12 per cent. is charged on leather, boots and shoes, bristles, thread, wax, and heel balls; but all other findings, tools, &c., are admitted free of duty.

## LEATHER.

Industry is of limited extent because of the cheapness of manufactured (foreign) shoes. The skins of the black, red, gray (gazelles), and mountain deer, and the hides of bullocks and elks for sole leather, are the materials used, and are found throughout Liberia. They are bought at Monrovia, skins for 12 cents each and hides from 50 cents to \$1 each.

The tanning is done exclusively with the bark of the swamp mangrove tree, which is regarded as the best for tanning. The time occupied by tanning ranges from one to three months, the latter period affording a good quality of leather. The curry knife and palm oil are used in dressing the leather. As this is a vegetable oil, it is thought not to contain as much life and vigor as an animal oil.

The quantity manufactured is small and is disposed of within Liberia. The varieties of leather imported are calf-skins, kip, split, sheep-skins, morocco, hog-skins, patent, cochineal, and oak and hemlock sole-leather.

American oak-tanned sole leather and findings are the best that are imported, but the French is regarded as superior. There is no general or special objection to American leather, and, if readily obtained, it would be on the whole preferred.

The only safe and reliable means of introducing leather would be through a resident of Liberia, Mr. George W. Rose. The terms would be governed in the main by a comparison of the prices of the countries from which the leather is imported. Could material be purchased so as to allow the manufacturer here to make a profit of 30 per cent. net, such terms would meet with approval.

#### BOOTS AND SHOES.

There is no factory system in Liberia and machinery is only used in making uppers.

The most commonly-worn shoe is the brogan, which is retailed here at from \$2.50 to \$3 the pair; a better quality of shoe, from \$3.50 to \$4.50; women's shoes from \$3 to \$4.50. Broad toes and flat heels, sharp toes and flat and high heels and box toes are worn. For a good shoe the elastic gaiter has the preference. Sizes range from 5's to 10's for men, and from 3's to 7 for women.

The styles vary with the country whence they are imported. Importations are made from France, England, America, Germany, Holland, and Belgium. The French shoes are ordered through English houses.

American machine-work does not wear well in this climate unless it be of a good quality. Our first-class shoe is not surpassed by any other imported.

The means of enlarging our trade would be through Liberian merchants. Among these may be named G. Moore & Son, R. A. Sherman, Henry Cooper & Son, Isaac C. Dickinson, all of Monrovia; Joseph Cheeseman and Augustus Williams at Grand Bassa.

The manner of placing boots and shoes and leather on the Liberian market could be accomplished by sending a variety of samples to one or more of the firms mentioned. Boots are rarely worn except during the rain season. Shoes imported from the United States come packed in trunks, and those imported from Europe in cases. The shipment should be as direct as possible from New York or Boston via Liverpool or Hamburg.

The average annual importation of boots, shoes, and leather amounts to about \$15,000; that of leather alone would not exceed \$1,000 in value.

JOHN H. SMYTH,  
*Consul-General.*

UNITED STATES CONSULATE-GENERAL,  
*Monrovia, May 29, 1885.*

#### SIERRA LEONE.

##### REPORT OF CONSUL LEWIS.

There are no tanneries or leather manufactories in Sierra Leone. Hides and skins are all obtained from local sources. Bullocks' hides when dry weigh on an average 10 pounds each, and are worth about 17 cents per pound. Leopard skins are sold at prices varying from \$2.50 to \$7.20 each, according to quality and the liberality of the purchaser. These skins are taken to England and the United States, where, tanned and lined, they are used as rugs.

I have no information with regard to the materials used in tanning, as it is all done in a crude way by the aborigines, and I think they like to keep secret all their arts. The materials, no doubt, are obtained on the spot in the woods. I have no means whatever of obtaining statistics of the quantity of leather made, but the amount is very limited. It is used in fancy covers to bottles, swords, daggers, sheaths, spear

covers, leather bags, &c., which the natives make and sell to foreigners passing up and down the coast and obtained at high prices as *curios*.

According to customs report for 1883, there was imported leather to the value of £1,161, consisting of basils for slippers, red roan for linings, patent leather for gents' dress shoes, upper leather and sole leather.

I believe no leather is received from the United States. It is ordered mostly by the shoemakers from England. If the price was low enough American leather would suit the market.

Let a good manufacturer or dealer send the United States consul good samples, stating low prices and offering a liberal commission to push the sale.

I know of no one here in particular who imports leather, but believe the shoemakers import their own in small quantities from time to time. The leather, as well as boot and shoe trade, is a difficult and risky business owing to damage to stock by the climate.

#### BOOTS AND SHOES.

The factory system of shoemaking is not carried on here, nor is machinery used, with the exception of a few sewing-machines—foot-power. The styles of shoes do not differ materially from those worn in England. Large sizes come in handy, as the majority of people wear shoes only one day in seven, so it don't do to have them too small.

Boots and shoes are imported mostly from England. In 1882 boots and shoes were imported to the value of £2,682; in 1883, £2,383; and in 1884, £2,133. A few years ago Yates & Porterfield, of New York, who have a house, here imported some American boots and shoes; they sold very well, but it proved an unsatisfactory trade on account of the climate. The shoes quickly get shop-worn; in consequence of dampness, I suppose, reddish spots appear all over the leather. Then if you sell them, getting first cost, you do well; the leather also molds, and with ladies' fancy shoes the cockroaches (these roaches are at least 3 inches long) eat the trimmings and the leather, all of which has a tendency to discourage importation.

American boots and shoes suit the market well enough and wear longer than English. I have never heard any fault found with American boots and shoes. To extend the trade, find the people who are sending ships here and try to sell them a large bill. None here is at present importing American shoes, for the reasons above stated. The demand is limited, and risk of loss is great, too many odds and ends being left over, which the dealer is obliged to sell for less than cost.

#### MISCELLANEOUS.

There is no duty on the importation of boots and shoes from any country, simply a wharfage tax of threepence per cubic foot. In order to put boots and shoes upon this market properly they must be ordered by a person knowing the market well, who must choose proper sizes and styles, and then the price must be right to sell here in competition with the present trade; this can only be done by a man actually in the business here, and then he is liable to err.

This is not a shoe-wearing community, as you see by the figures given—only about \$10,000 or \$12,000 annually. The population of this town, Freetown, is 21,900, and of the colony of Sierra Leone, 60,000. Only the upper classes wear shoes on week days.

Sierra Leone does not offer a very inviting field for the introduction of American shoes. It has been tried by the American house and given up as not a paying portion of the business for the reasons stated above.

JUDSON A. LEWIS,  
Consul.

UNITED STATES CONSULATE,  
Sierra Leone, June 6, 1885.

### CAPE COLONY.

#### REPORT OF CONSUL SILER.

#### TARIFF.

Last year the colonial parliament passed a law levying a customs duty on all imports of leather or leather manufactures, except boots and shoes, of 15 per cent. ad valorem; on boots and shoes, men's, per dozen

pairs, \$1.94; women's, per dozen pairs, \$1.46; girls' and boys', per dozen pairs, 73 cents; children's, per dozen pairs, 45 cents; slippers and golasches, per dozen pairs, 48 cents, with the addition of 10 per cent. ad valorem.

Owing to the absence of any recent census of industries of the Cape Colony it is impossible to give more than an approximate idea of the number, character, and extent of manufactories in this consular district.

#### LEATHER.

There are several tanneries in operation throughout this colony, but of small capacity, and the industry cannot be described as in a flourishing condition. I have not been able to ascertain their number, the extent of the output of leather, nor the number of persons to whom the industry affords employment.

There is no modern or labor-saving machinery for tanning in use here, and all the manipulations to which hides and skins are subjected in the tanning process are performed by hand, and principally by native unskilled labor. Hides and skins tanned here are entirely colonial, and the leather produced is all consumed by local demands. The leather of the Cape Colony is roughly finished, but strong and well adapted to the style of harness generally in use in South Africa; it is used to a limited extent in the manufacture of saddlery; but for boots and shoes its use is almost entirely precluded, except for native wear, owing to its retaining a peculiar and very offensive odor which no process has yet been found to extinguish. This blemish is doubtless due to some defect in the tanning process not yet discovered.

The materials used in tanning here are all colonial, except small importations of Australian barks. The colonial barks used seem not to be the best for tanning, and it is to this that the odor of the leather has been to some extent attributed. The trees from which the tanning-bark is taken are known here as the *vaahboom* tree, the *kliphout*, the sugar-bush, and the acacia or Australian wattle. There is little or no effort used to preserve or propagate these trees, and as their number is limited and rapidly decreasing it is not extravagant to predict that at no distant period South African tanners must look abroad for their tanning material.

In 1884 unmanufactured leather to the value of \$41,200 was imported into this colony. Of this, \$35,510 is accredited to Great Britain, \$3,280 to the United States, and the remainder to other countries. For the same year the importations of leather manufactures, embracing saddlery and harness, and "other kinds," not including boots and shoes, amounted to \$145,056, of which Great Britain supplied \$144,000, the United States \$40, and other countries the remainder. It will be seen, therefore, that of all the leather and leather manufactures, exclusive of boots and shoes, imported to this country during last year, Great Britain supplied the value of \$179,510 out of an aggregate of \$186,256. This showing is only apparent, however, so far as giving a true exhibit of the import of goods of this line from the United States, for it is well known here that American leather often finds its way here through London houses, and is entered and put upon the market as English leather.

American leather, when known to be such, seems to suit this market fairly well; indeed, it is preferred in the carriage and coach trimming line, the colored varieties being in favor. I have heard of complaints on account of some goods being too heavy, but that should be attrib-



uted to the fault of the importers not properly consulting the tastes and requirements of the market rather than to any defect in the leather. Again, some fault has been found with American leather on account of certain alleged chemicals used in the tanning process. It is asserted that leather thus served soon loses its pliability and tends to crack.

I would suggest as the best method of introducing and enlarging our leather trade in South Africa that some man familiar with the leather industry in all its branches be sent here in order to study the customs and features of the colonial trade, and upon his return to the United States to report fully his observations for the benefit of those concerned.

The following list embraces the names of most of the principal tanners in the colony, namely: At Cape Town, D. Alexander, John Davidson, Mossop & Garland, I. Woodhead; Port Elizabeth, Bagshaw & Moore, D. Doig, G. Bradshaw; Graham's Town, William Butcher, I. Cairns; Wellington, Western Tanning Company; King William's Town, T. Wright.

#### BOOTS AND SHOES.

The factory system of shoemaking is carried on in this country to a very limited extent. There is one factory at the town of Wellington, one at Worcester, one at Blanco, one at Graham's Town, and two small ones at Cape Town—in all giving employment to about 500 persons. There is no way of arriving at an exact estimate of the aggregate output of these several factories, but it is all consumed in the country. The only machinery used here in boot and shoe making are riveting and upper-closing machines. The classes of boots and shoes made are chiefly those of the rougher kinds, such as men's Bluchers, men's russet balmorals, men's heavy elastic sides, women's levant balmorals, women's mock kids, elastic sides, boys' and girls' russet levant elastic sides and balmorals, and leather slippers in black and russet. All the better and finer qualities of boots and shoes used here are imported from England and the Continent, Great Britain furnishing about nineteen-twentieths of the entire quantity. The styles, sizes, shapes, and fittings are the same as those used in England. Sizes range, for infants, from 0 to 5; boys and girls, from 6 to 13; youths, from 1 to 5; women's, from 1 to 7; and men's, from 6 to 13; and are generally made in three fittings, viz, narrow, intermediate, and wide.

During the year ending December, 1884, boots and shoes imported to this colony amounted, in numbers, to 87,588 pairs, and in value to \$1,298,671, of which the United Kingdom is credited with 87,511 pairs, valued at \$1,297,117. These figures are taken from the customs returns for the year 1884, in which no mention of imports of American boots and shoes is made.

The imports of American boots and shoes to this colony are almost *nil*. I have not met with a representative of an American boot and shoe firm during my residence of nearly four years. American boots and shoes do reach here, however, but generally through London houses, and so far do not seem to be liked. They are considered high-priced in comparison with English goods; and it is again said by importers that American goods are not sufficiently substantial, and are too stylish in finish to suit this market. This objection can only be remedied by our manufacturers conforming to the requirements of the market.

It is my opinion that the best means of enlarging our boot and shoe trade in South Africa would be to correspond with and make consignments to reliable firms who deal in that line, and to offer such firms lib-



eral inducements on their consignments. Such firms as are embraced in the list given below would willingly give all the information as to goods suitable to the market that would be required. I beg to observe, however, that my long residence abroad has convinced me that the best way to introduce and push American trade of all descriptions is through the medium of reliable and competent traveling agents. Resident merchants, as a rule, always have stock on hand which they are anxious to dispose of, while no special risks rest on goods on consignment.

The boot and shoe dealers whom I could recommend are as follows: I. D. Jones & Co., I. Garlick, Cape Town; P. Barnett & Co., Port Elizabeth; George Besseker & Co., Port Elizabeth; William Jones & Co., Graham's Town; I. McIntyre, King William's Town; Peach & Co., Limited, Kimberley.

As an illustration of the leather capabilities of South Africa it might be of interest to our tanners to learn that during last year Cape Colony exported the following raw material to various countries, but principally to England: 207,218 ox and cow hides; 7,205 calf-skins; 1,127,714 goat-skins; and 2,319,954 sheep-skins; the entire valued at \$2,143,469. Of these shipments, 240,016 goat and 11,274 sheep skins, valued at \$89,238, went to the United States.

For net cash, ox and cow hides can be bought here, delivered, at 7 to 9 cents per pound; goat-skins, at 20 to 21 cents per pound; and sheep-skins, at 24 to 42 cents each. Whereas the following quotations for imported leather rule the market here at present, viz: Australian butts, 33 to 36 cents per pound; Australian kip, 36 to 37 cents per pound; Chilian butts, 26 to 28 cents per pound; English chemical tanned, 54 to 60 cents per pound; English bark tanned, 60 to 62 cents per pound; harness, brown or black, 66 to 77 cents per pound; calf-skins, \$1.15 per pound; French calf, 97 cents per pound; kips, 54 to 97 cents per pound. These quotations apply to goods on which duties have been paid, and apply exclusively to the wholesale trade. A discount of 5 per cent. is allowed on cash payments; otherwise, three or four months' credit is the rule of the market.

JAMES W. SILER,  
*Consul.*

UNITED STATES CONSULATE,  
*Cape Town, July 27, 1885.*

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## MAURITIUS.

### REPORT OF CONSUL PRENTIS.

An ad valorem duty of 6.75 per cent. is levied upon leather, boots, and shoes, irrespective of nationality. For fiscal purposes the pound sterling of invoice value is converted into 10 rupees at the custom-house, which is altogether in favor of the shipper; as his remittances are made in gold, or its equivalent, whilst his goods are only taxed in rupee currency.

A leather industry, as such, can hardly be said to exist here. In the census returns of 1881 eighteen persons, out of a population of 360,928, described themselves as tanners. Twelve of these were Indians and the remaining six belong to the native colored class. In the same returns 41 persons, of whom 37 were Indians, were entered as curriers. The output of native-made leather must thus be small.

The figures of the Blue Book show that the average export of raw hides nearly balances the import of bullocks for consumption. I therefore infer that not a single hide tanned in Mauritius is imported for that purpose.

The material used for tanning is, I believe, the wattle bark of Australia. The average importation annually of this bark is about 50 tons. I am not aware that native bark is available, owing to the stringency of the forest laws.

Taking the average of four years, I find the annual imports of leather amount to 86,316 kilos, French weight. It comes from the following countries, the largest quantity coming from the place first named, and so on: Australia, Pondicherry, United Kingdom, France, Ceylon, India, and Réunion. The United States is not represented. The kinds of leather imported are the usual sorts, the better class coming from Europe.

#### AMERICAN LEATHER.

There are no direct imports from the United States, and when American leather arrives here it has passed through a number of hands and in small quantities. American leather is considered too dry and hard. If it were softer and well pressed to avoid shrinking it might compete successfully with that of other countries. The best way to make it known would be a trial-assorted consignment.

Importers of Australian leather are Ireland, Fraser & Co.; Blyth Brothers & Co.; Scott & Co.; Currie, Fraser & Co. In all cases leather is sent on consignment on shipper's account.

#### BOOTS AND SHOES.

The factory system is unknown in Mauritius. The census returns 713 shoemakers, one-half of whom are engaged exclusively in repairs. There are four or five shops, employing perhaps a dozen hands each, which turn out first-class articles; but the only machinery used is the sewing-machine.

A good style of boot is produced here, principally for men and children. Ladies who require strong walking boots patronize local makers. The styles and sizes are copies of English and French prevailing fashions. The output, such as it is, is for purely local consumption.

#### IMPORTATIONS.

Probably 50 pairs of boots and shoes are imported against every pair made in the island. Taking the average of the same four years, as I have done with the leather, the annual importation amounts to 156,781 pairs of all sorts. The invoice value as declared at the custom-house was 291,335 rupees (10 rupees make a pound). They were imported from the following countries, in the order in which I have placed them: France, India, Great Britain, Pondicherry, Ceylon, Singapore, Réunion, the fisheries (American whaling ships), Cape Colonies, and Madagascar (one pair). In one year out of 147,640 pairs imported 66,857 came from the East, leaving only 80,783 pairs to come from Europe. Those coming from the East are men's slippers, such as are worn by the Mohammedans, Chinese, and better class Hindoos, the price of which being low gives a higher average to the European article. For instance, 50,031 pairs imported from India are put down at 15,519 rupees; while 12,995 pairs

imported from England are valued at 32,183 rupee :. It will convey a very good idea of the style and quality of imported boot if I say that France, which of course means Paris, stands first on the list with 67,159 pairs, with an invoice value of 193,988 rupees, taking the rupee at par. The firms already mentioned would deal in shoes and boots as well as leather.

## PACKING.

Boots and shoes except the best sorts are usually imported in trunks, wrapped in canvas. First-class materials used in making up come in cases; common leather is brought in bales. In any case care should be taken to insure their arrival in good condition.

As a concluding remark, I would not recommend any manufacturer to try this market who is not prepared to send out a first-class article in respect of both quality and style, as the boots and shoes worn by the better classes are the same as those worn in London and Paris.

THOMAS T. PRENTIS,  
Consul.

UNITED STATES CONSULATE,  
*Mauritius, August 19, 1885.*

## MAHÉ (SEYCHELLES).

## REPORT OF CONSUL MUSSEY.

In this consular district there appears to be no possible opening for the introduction of American-made goods in the leather line, as this market is fully supplied by European manufacturers probably at a lower cost than the same class of goods could be placed by American houses. The lack of ready money in the colony, the extreme delays and difficulties of transportation to these distant islands and the limited number of inhabitants who wear boots and shoes at all, preclude entirely the possibility of successful introduction of American goods, or the enlargement even of the circumscribed traffic already established in this line of business. Only the most common class of cheap cloth shoes are on sale, and the import returns show that only 78 dozen pairs were brought into the country during the twelve months ending December 31, 1884. Moreover, the outlook for the future of the shoe trade is extremely dark and discouraging.

No leather is produced in the Seychelles Islands, no boots and shoes are made, and the entire business of the shoe trade is therefore represented by the figures given above.

Import duties are levied at 6½ per cent., and no discrimination is shown for or against the products of any particular country in this line of goods.

EVELYN P. MUSSEY,  
Consul.

UNITED STATES CONSULATE,  
*Mahé, Seychelles, July 15, 1885.*

**AUSTRALASIA.****AUSTRALIA.***REPORT OF CONSUL GRIFFIN.***TANNING INTERESTS.**

At the beginning of the present year, 1885, the number of tanneries in operation in the colony of New South Wales was 107, and of these about 30 were located in Sydney. The number has probably increased since then, as the leather industry appears to be in a very flourishing condition. The country is so well adapted to the raising of cattle that it would be a matter of surprise rather than otherwise if very general attention were not given to the leather trade.

Although tanneries were established here soon after the first settlement of the colony, it has only been within the last few years that any great progress has been made in the art of tanning. The industry, however, has reached such a state that very favorable results may be expected from it in the near future. The bulk of the leather produce of the colony is admitted by judges to be of very fair quality. There is, however, much complaint against the careless manner in which the skins are removed from the animals. They are often so cut and slashed up that it is almost impossible to make use of them. These cuts do not show in the green state, and it is only after they have been dressed that their defects become known. A large amount of local capital is employed in the leather trade. The city of Sydney offers many advantages for the development of this trade. Besides being the great shipping port and depot of this colony it is connected by railways with all the important districts in the colony in which the tanning industry is carried on. Amongst the towns where tanneries are located I will mention Bathurst, Orange, Mudgee, Glen Innis, Wagga Wagga, Albury, Grafton, Penrith, Windsor, Braidwood, Ulladulla, Armisdale, Tamworth, Bega, Paramatta, &c., but the principal works are situated in and around the metropolis, and include those of Messrs. Alderson & Sons, Begg & Sons, Davenport & Sons, Farleigh & Nettheim, James Forsyth & Sons, and Walsh, Elliott & Rennie, whose brands of leather are well known in the London market.

**SOURCE OF SUPPLIES.**

The tanneries in the neighborhood of Sydney are mainly supplied at the public abattoirs at Glebe Island in Sydney Harbor, but every town of importance in the colony has a tannery which serves as a depot for the surrounding country. The hides are so carefully looked after that the farmers regard only twenty or thirty hides a year worth sending to a tannery. On account of the great distance between stations, one tannery is often the deposit for hides from a large extent of country.

The system of branding cattle is almost universally practiced in the colonies, and is of course very injurious to the hides. The small value of cattle and the difficulty of shepherding them in thinly-populated counties are the principal reasons why this method of designating ownerships is not discontinued.

The average price paid for hides at the Sydney tanneries is from

\$4.50 to \$5 each. The tanneries here, however, do not consume by any means all the hides of the colony, for large numbers of them are sent to England to be tanned. They are usually loaded in the wool ships, under the wool. The skins of sheep are also largely exported for the same purpose, but vast numbers of them are used at the local tanneries. A carefully-cut sheep-skin without any wool on it will sell readily for 6d. (12 cents) in Sydney. The price of the skins containing wool depends, of course, on the quantity and quality of the wool.

Australian sheep-skins properly prepared are said to make the best imitation of morocco leather known to the trade. Buyers of these skins take the precaution to instruct the butchers to see that the animals are properly flayed and that no particles of fat are left on them, for otherwise decay is certain to set in and the leather will become spotted and discolored.

#### MATERIALS FOR TANNING.

The great bulk of the material used for tanning leather in Australia is obtained from the wattle, or mimosa bark, the produce of various species of the acacia. This bark yields a higher percentage of tannin than any other vegetable material in the world, with the single exception of the celebrated taneka bark of New Zealand, a product peculiar to that colony, the properties of which I have described at length in my special report on that subject.

An interesting feature connected with the mimosa bark is that its percentage of tannin increases after a year or two, if kept in a dry place. The bark is usually gathered in the spring, which begins here in the month of September; as the colony is south of the equator the seasons are of course reversed. The bark is so highly prized for tanning that considerable quantities are exported to England, the annual exports being about 9,000 or 10,000 tons. Occasionally the exports have reached as high as 20,000 tons per annum. The demand for it has been so great that at one time it was thought the trees would disappear altogether. The government, however, has taken very active measures to promote their growth, and have caused vast numbers of them to be planted all over the colony and especially on the railway reserves. Strong efforts are also being made to encourage planting these trees by private enterprise. Many varieties of the wattle are very beautiful, with graceful, wavy, feathery foliage, and often have clusters of highly-perfumed colored flowers.

Mr. I. H. Maiden, of the Technological Museum of Sydney, who has given much study to the condition of the trees and plants of Australia, states, in a letter to me bearing date 30th of July last, that wattle barks are usually found in commerce in four forms: First, in narrow strips about 3 feet long, pulled off the tree; second, in small pieces 1 inch in length and about the same in breadth; third, ground bark, having the appearance of retted fiber; fourth, powdered bark, forming a very fine powder. The wattle bark forms a hard and heavy tannage when used strong, but soft leathers may be tanned with it in weak liquors. Extracts are now made of this bark, and the English tanners prefer it sent to them in that form. The best form of extract is said to be obtained by mixing other barks with bits of wattle.

The following are some of the principal wattle barks used in tanning:

The black wattle, indigenous in New South Wales, Victoria, and South Australia. It is a small or middle-sized tree, attaining a height of about 40 feet with a diameter of 18 inches. It has slightly angulated branch-

lets. The leaves are reduced to phyllodia, usually 3 or 4 inches long, with two or three longitudinal nerves. It flowers at first on peduncles in an axillary raceme, which, after flowering, often grows into a leafy branch with the peduncles at the base, each bearing a globular head of about twenty flowers. The bark yields about 30 per cent. of tannin. A ton of this species is sufficient to tan twenty-five or thirty hides. It is best adapted to sole leather. Leather tanned with it is believed to be fully as durable as that tanned with oak. It improves in tanning powers from 10 to 15 per cent. if stowed carefully for a season. The cultivation of this wattle is extremely easy, it being done either by sowing broadcast or in rows. The cost of a package containing 40,000 seeds is about 5s. (\$1.20). The seeds retain their vitality for several years, and should be soaked in warm water before sowing. A full-grown tree yields about one hundred-weight of bark.

It is worthy of mention here that all the various kinds of wattle make excellent firewood.

The *Acacia decurrens*, variety *Acacia de albata*, known as the silver wattle, is another valuable variety. It is, however, thinner than the black wattle and not so rich in tannin. A sample shown me in the Technological Museum of Sydney yielded 25.5 per cent. of tannic acid. The silver wattle is easily distinguished by its pale or ashy foliage.

The golden or green wattle (*Acacia pyonantha*, Benth.). This variety is indigenous in Victoria and South Australia, and is often cultivated here. The bark is thought by Australians to be the best tan bark in the world. A sample in the Technological Museum of Sydney yielded 25.5 per cent. of tannin. The growth of this tree is much slower than that of the black wattle, nor does it yield so large a proportion of bark, but it is certainly much richer in tannic acid than the black wattle.

*Acacia inplexa* (Benth.) is another valuable variety, indigenous in Queensland and Victoria. The leaves of this tree are reduced to phyllodia. The flowers are numerous and form in small dense heads or peduncles, in short, slender racemes.

*Acacia penninerosis* (Blackwood) is another valuable variety of wattle used for tanning. The bark yields about 17 per cent. of tannin. The tree reaches a height of 40 feet. It is found on the Blue Mountains and in various other parts of the colony, and also in the southern part of Queensland.

The native willow (*Acacia salicina*) is also a favorite bark for tanning. It was formerly extensively employed by the aboriginal or native inhabitants for tanning skins for water-bottles. The tree is found in every part of Australia.

The native hickory is another valuable bark for tanning.

Many other varieties are also used for this purpose—the sweet willow, *Acacia calamifolia*, *Acacia excelsa*, &c.

Large quantities of wattle bark are always forthcoming and heavy shipments are imported from Tasmania and South Australia. The bark is sent in bags and bundles and may be classified as follows:

	Per ton.
Ground, in bags, estimated value in Sydney .....	\$35 to \$50
Chopped, in bags, estimated value in Sydney .....	25 to 45
Bundled, in bundles, estimated value in Sydney .....	10 to 20

Tallow and bees-wax are used to a considerable extent in dressing leather. Both of these articles are produced in the colony in large quantities. The oils used here for dressing consist of whale-oil, black-fish, cod, and other fish oils, whale-oil heading the list, the colonies drawing their supply from New Zealand and the other South Pacific islands, and occasionally from the United States.



## QUANTITY OF LEATHER MANUFACTURED.

In regard to the total quantity of leather manufactured in the colony of New South Wales, I regret to be obliged to say that an insufferable difficulty exists in arriving even at anything like an approximate estimate, inasmuch as no returns bearing upon the subject are available; that the quantity reaches large figures there can be no possible room for doubt. It is estimated that in Sydney alone something like \$500,000 worth of colonial-made leather is sold at auction in the course of a year, probably two-thirds of which goes into local consumption, the balance being bought for export, while two or three of the large tanneries have extensive boot factories of their own, in addition to which they supply the local trade with leather, so that the actual output must be a matter of conjecture.

## LEATHER IMPORTS.

The value of the various kinds of unmanufactured leather imported into New South Wales during the year ended December 31, 1884, was \$372,715. These imports consisted of 2,998 packages, of which Victoria furnished 1,652; Great Britain, 619; United States, 249; Tasmania, 156; South Australia, 148; Queensland, 75; Hong Kong, 40; New Caledonia, 29; New Zealand, 21; Germany, 5; France, 4.

The subjoined table shows the quantity of unmanufactured leather imported into New South Wales for each year since 1874:

Year.	Quantity.	Value.
	<i>Packages.</i>	
1874.....	670	\$157, 080
1875.....	787	178, 995
1876.....	743	148, 590
1877.....	2, 027	239, 370
1878.....	1, 866	227, 190
1879.....	1, 519	228, 320
1880.....	1, 779	215, 350
1881.....	2, 194	333, 990
1882.....	2, 558	390, 985
1883.....	2, 611	363, 770
1884.....	2, 998	372, 315

The truth is the imports of leather are very small for a population of nearly 1,000,000 souls, and, if we put aside the leather imported from Victoria and other Australian colonies, the number of packages would be fewer than 1,000, and the total value would not exceed the sum of \$175,000.

## IMPORTS OF LEATHER FROM THE UNITED STATES.

The bulk of the foreign leather imported into the colonies is from Great Britain and the United States. The value of the leather imported from the United States during 1884 was \$69,830, against \$47,780 for 1883. While the imports from the United States are increasing, those from Britain are declining. The imports from Britain declined from \$161,535 in 1883 to \$147,070 in 1884. The value of the imports from France in 1883 was 15,000, from Germany, \$3,500, and from Belgium, \$450. In this importation are included sole leather and leather for uppers. The leather imported for the use of carriage-makers consists of black enameled hides of two weights—one for tops and the

other for trimmings. Japanned split leather for dash-boards and various kinds of colored imitation of morocco leather for trimmings are also imported, and I may as well mention here that enameled ducks and drills and rubber drills find a ready market here, the American articles being considered the best. Competition, however, is very keen, and the English goods are a shade lower in price.

#### HOW AMERICAN LEATHER SUITS THE MARKET.

There is no doubt whatever that the American sole and upper leather is by far the best introduced into this market. As yet its superiority is known to only a few dealers. At recent auction sales the American products commanded much higher prices than any other.

#### AMERICAN PATENT LEATHER.

It is perhaps not generally known that the best and finest patent leather in the world is made from the hides of cattle raised in the State of Kentucky. The cattle of the bluegrass region of that State produce the largest, thickest, and heaviest hides known to the trade. The greatest possible care is taken in tanning and preparing these skins. The tannage used is a mixture of hemlock and oak bark known to the trade as "union tannage." The bate is worked out very carefully by means of a hide-mill, through which passes a stream of water. The hides are then worked over with a bate-stone.

Mr. Charles Thomas Davis, a high authority on leather, in describing the preparation of these skins, says that after the bate-stone is used that the hides are placed in a wash-wheel, and worked for about twenty minutes, after which they are in a condition to be properly swelled for the reception of the tanning liquors. The hides are not laid away in the ground-bark like those intended for sole and upper leather, but are placed in vats having a circular bottom, and above which there is placed a revolving wheel, which agitates both the tanning liquor and the hides. The hides then have the buffing removed and are passed through the splitting-machine. The split portions are very carefully worked, and when thoroughly tanned are put upon a table and scoured by the most improved machinery. They are next put upon stretchers, and when perfectly dry they are coated with enamel made of white-lead, litharge, and linseed-oil. They are next placed in an oven in which the heat is gradually increased from 80° to 250° Fahrenheit. The next process is to rub them with pumice-stone and with linseed-oil and ivory-black, and then varnish them with a mixture of turpentine copal, asphaltum, and linseed-oil.

#### AMERICAN SOLE LEATHER.

The boot-makers here prefer American sole leather to English or any other make. Messrs. Abbey & Co. inform me that Krow & Co., of Santa Cruz, Cal., ship to this market considerable quantities of extra heavy sole from 24 pounds average, and that they prefer it to the best English make. At a private sale a few days ago in this city 20 bales of Krow & Co.'s sole leather (each bale containing 20 sides) brought the sum of \$2,600. The tannage of this leather is of chestnut-oak and very light in color.

Light-colored leather appears to be preferred here to that of hemlock tannage, very little light-colored sole leather being made in New South Wales. Indeed the art of giving it a light shade does not appear to be

understood here. In Victoria, however, the tanners succeed in making light-colored leather by passing the hides through a solution of valonia after they have been tanned with the wattle. Boot-makers believe that the light-colored leather makes a better finish than that colored with red or hemlock, and perhaps that is one of the reasons why California leather, which is always of a light color, commands a better price than any other, even in the United States.

The American leather is wholly free from that sickening and disagreeable smell common to the colonial product.

American glazed leathers for saddlery and harness have distanced all competitors in this market. The demand for these articles by saddle and harness makers is constantly increasing, and there is every reason to believe that the trade, if properly pushed, will swell to very large proportions.

The best means to increase the trade in American leather is through intelligent traveling agents who thoroughly understand their business. The goods should be in the market before any attempt is made to advertise them. If samples are sent they should fairly represent the goods. If any deception is practiced a second order will not be sent.

#### DEALERS IN LEATHER.

The New Zealand Loan and Mercantile Company, Alderson & Sons, I. E. Bigg, Davenport & Sons, Forsyth & Sons, F. L. Barker, Harrison, Jones & Devlin, Mort & Co., Hill, Clark & Co., are amongst the principal leather dealers in Sydney.

#### COMPRESSED LEATHER.

A factory has been established in Marrickville, one of the suburbs of Sydney, for the manufacture of compressed leather. The process was invented and patented several years ago by Mr. A. E. Arnold, and very large results are expected from it. It consists in the utilization of scraps, cuttings, and every description of waste leather by compressing them into bricks, blocks, and various designs by means of a hydraulic press. The scraps are placed in a chemical solution, and after becoming thoroughly saturated are put into a mold and subjected to a hydraulic machine capable of pressing to the extent of 450 tons into a block 12 inches square. After undergoing the pressure the blocks can be turned or planed into various artistic shapes, such as statuary, brackets, wainscoting, panels, &c. All these articles are capable of receiving a most brilliant polish. One of the chief excellencies of the material is its durability. I visited the factory a few days ago and was shown some specimens that had been soaked in water for 12 hours, and when the surface was scraped off the articles were found to be perfectly dry. The strength of a block about five inches square was tested by a rifle ball fired at a distance of 60 feet, and it was found to have penetrated the material only an inch and a half and without making the slightest splintering.

Amongst the uses to which compressed leather is applied may be mentioned, breaks for wagons and carriages, railway blocks, stair-treads in place of the much-used and unserviceable oil-cloth or slippery coverings usually in vogue for covering stairs. Smoke rooms floored by these blocks, in their polished form, would become not only luxurious in appearance, but perfectly cleanly. Their use for the bath-room would be an undoubted advantage, inasmuch as they are water-proof. The blocks being entirely free from splintering, it has occurred to me that they might be used very advantageously as padding for war vessels. They would serve to protect the men who stand by the guns, and would also help keep the vessel water-tight.

The late rear-admiral, who was in charge of this station, took great interest in this compressed leather. He spoke in very eulogistic terms of the blocks being used for naval warfare. He said that he was sure that compressed leather would very soon be brought into general use for such purposes.

#### DUTIES ON LEATHER.

There is no duty charged either on manufactured or unmanufactured leather imported into the colony of New South Wales. The admission

of these articles free of duty forms a striking contrast to the course pursued by the other colonies, and is the subject of much complaint amongst the leather manufacturers of Sydney. In Victoria there is a tax of  $7\frac{1}{2}$  per cent. ad valorem on all unmanufactured calf and kid leather imported, and a tax of 10 per cent. on patent, colored, and fancy leathers, and all other leathers, except crust or rough-tanned hog-skin, calf, and goat, and sumac-tanned sheep.

The tax in Victoria on boots and shoes is as follows: Men's No. 6 and upwards, 33s. (\$7.02) per 1 dozen pairs; slippers, men's, women's, and children's, 9s. (\$2.18) per 1 dozen pairs.

All boots and shoes, and in fact all kinds of leather goods, are admitted, as I have said previously, into New South Wales free of duty.

The evidence recently taken by the commissioner for the investigation of the operations of the tariff of Victoria was strongly in favor of admitting free of duty all leather known as wax-calf, calf, kid, glove and glove-kid, morocco, goat, and seal, and levant and patent calf. The commission expressed the opinion that the quality of colonial calf-skin was greatly inferior to the imported article on account of the imperfect manner in which their calves are nurtured and the want of the necessary skill in preparing and dressing the skins. It also found fault with the reckless manner in which cattle were branded and flayed, and recommended that an act of parliament should be passed to prevent these abuses.

In regard to boots and shoes, the commissioner was of opinion that the fiscal policy of the colony gave a great impetus to the import trade, and at the same time aided materially in developing home manufactures. It said, however, that the manufacturers of the ordinary and common class of boots and shoes thought that the last increase of duties in the tariff had been detrimental to their business, inasmuch as it caused a great number of competitors to commence manufacturing. The commission recommended that efforts be made to increase their export trade to the adjacent colonies, and at the same time admitted that Victoria labored under some disadvantages in trying to compete with New South Wales free of duty. It further said that the manufacturers were opposed to any system of drawback in their leather exports, from the fact that such systems were not only troublesome, but opened the door to fraud, in consequence of the impossibility of custom-house experts being able to detect uppers made of colonial from those made of imported leather. As to saddlery and harness, the commission thought that the manufacturers and journeymen were quite satisfied with the tariff, with the exception of the duty on patent leather and patent machinery. One of the largest of the manufacturers, who employed 95 hands, said that he would not object to the removal of the duty from saddles and harness if hog-skins, patent leather, saddle-trees, plated spurs, stirrups, bits, seal-skin, blue serges, twine, and tacks were admitted free. A letter was read from the only dresser of hog-skins in Victoria, who stated that on account of the difficulty experienced in obtaining tanned hogskins from England, it was his intention to discontinue dressing them.

At the last international exhibition New South Wales took the lead of all the other Australasian colonies in number, variety, and excellence of the different kinds of dressed hides. It was noticed, however, that the bags, portmanteaus, &c., exhibited by New South Wales manufacturers had little to commend them.

The strong and heavy boots made here sell at low prices, and are well adapted to the country trade, bush life, &c. Much improvement has also been made here during the last few years in the manufacture of

women's and children's boots and shoes. It is estimated that the annual output of these articles is four or five times greater than in 1881, a fact said to be due to the introduction of skilled labor and to the application of machinery.

#### LEATHER-WORKING MACHINERY.

There appears to me to be a wide and profitable field in Australasia for the introduction of American leather-working machinery. The colonists are slow, however, to adopt improvements, and importers would at first have some difficulty in overcoming the prejudice against untried machines. The prejudice, however, will in time be overcome, as has been the case with the American agricultural machines and implements. Muller & Co., of London, have succeeded in introducing a number of their machines here for working on leather. The features of these machines consist, first, in a cylinder or barrel set with knives, which are arranged in a right and left spiral from the center to the end (the knives are made of either brass or steel, and may be sharp, blunt, or wire-edged, according to the character of the operation required); second, a roller covered with india-rubber, revolving in a frame under the knife-roller and acting as a beam, this roller being brought up by the operator's foot on a treadle and its closeness being regulated by a set-screw; third, a clip-frame sliding in front of the machine to and fro from the rollers, this clip holding the hides or skin in its grip while it is pulled back against the action of the knives. The whole working of the machine is as follows: The skin held in the clip is thrown over the beam or roller, and on being raised into contact with the knife-cylinder, the spiral action right and left stretches it out and operates on its surface in the way desired, either in removing wool or flesh, in thickening, or in the various operations of setting out, &c. These machines, however, will soon be superseded by American ones. Alderson & Sons, of Sydney, are much pleased with the Lockwood automatic leather-scourer and setting machine. This machine will scour all kinds of leather, and will set calf skins, kip, buff, and wax. It can, however, only be used in large tanneries, as its cost is considerable, but everywhere it has been used, has given very general satisfaction. Mr. Davis states in his recent work on the manufacture of leather that he saw seven of these machines in Messrs. Bryan & King's tannery in Woburn, Mass., and was surprised at the ease with which they were operated and the excellence of their finished work. Among some of the improvements in this machine over the one patented by the inventor in 1876 may be mentioned the method of driving the operative parts of the machine by means of shafting and gearing instead of belting, and the substitution of a single lever in lieu of the double hand-levers for controlling the truck on the ways and the so-called cross-head and carriage. Another improvement is the attachment of a large table on which to place the stock, so that one workman can be preparing a side at one end, while the other will be directing the machine in the automatic setting out of a side previously arranged on the other end. The working thus keeps two men constantly busy, but the physical labor required is light. The strokes made are either strong or light, as desired, being directly under the control of the operator, who, with his hand on the wheel, guides them, so in going over the bellies and flanks working out folds and thoroughly setting out thick portions of a side the work is not only done quickly and well, but the leather is made to measure enough more on all stock sold by the foot to quickly pay for the machine in the gain thus made.



EXPORT OF LEATHER.

The value of various kinds of unmanufactured leather exported from the colony of New South Wales during the year ended December 31, 1884, was \$655,540 against \$491,120 for the year 1883. The exports were heavier in 1882 than in any other year in the history of the colony, having amounted to as many as 6,416 bales, valued at \$712,365. I give below a table showing the quantity and value of the exports of leather products of New South Wales for each year since 1874:

Year.	Quantity.	Value.
	<i>Packages.</i>	
1874.....	3,890	\$474,690
1875.....	4,465	541,735
1876.....	4,183	466,525
1877.....	4,378	457,330
1878.....	4,186	450,665
1879.....	3,202	314,350
1880.....	4,930	572,185
1881.....	6,068	674,475
1882.....	6,416	712,365
1883.....	5,057	449,120
1884.....	6,115	655,540

RAW HIDES.

The total exports of raw hides from New South Wales during the year ended December 31, 1884, amounted to 210,443 hides, valued at \$950,820. Of these Britain received 104,910; Victoria, 86,240; Queensland, 7,437; San Francisco, 5,615; South Australia, 1,804; Tasmania, 1,634; Antwerp, 1,562; France, 935; New Zealand, 493. Of the hides of New South Wales it is difficult to estimate the quantity produced, but the return of cattle for the year 1884 amounted to 1,640,753 head, and as, in addition to the ordinary butchers' consumption, there are large canning works in operation, the number forthcoming must be very considerable.

With regard to the relative value of hides, those from New Zealand and Queensland are most in request, and usually realize top rates, on account of their superior substance and compactness, rendering them specially suitable for the manufacture of the best and more expensive descriptions of sole leather and belting. The greater portion of the hides used in the colony are sold at auction in Sydney, one day per week being set aside for the market, and it is estimated that on an average some 7,000 change hands in this manner weekly.

The bulk of the hides are salted, only a small proportion being what is termed "dry." On reaching the market, which is practically confined to the stores of some seven or eight of the principal produce brokers of the city, the various parcels are sorted, graded, and lotted for sale, the minimum bid being an eighth of a penny per pound, and the terms net cash before delivery.

TARE.

A new system of tare has lately been adopted in consequence of the disputes which were continuously occurring under the old régime. As the matter may be of interest, I give the new system in detail:

That a tare of 7 per cent. be allowed on all hides sold. In event of buyer objecting to the percentage tare, he shall have the option of sweeping the hides, and after the hides shall be made, except in the case of hides of 40 pounds and under, on which there shall be no allowance after sweeping.



The subjoined table shows the present classification, weights, denomination, estimated value, &c., in use in Sydney :

Weights.	Denomination.	Estimated value.	Suitable for the manufacture of—
		<i>Per pound.</i>	
25 pounds and upwards..	Extra heavies ..	\$0 28 to \$0 11	Sole leathers and belting.
56 to 64 pounds .....	Heavies .....	7½ 9	Do.
48 to 52 pounds .....	Medium .....	6½ 8½	Harness leather.
40 pounds and under.....	Light.....	6½ 7½	Kip and tweed for uppers, bag, and bridle.
		<i>Each.</i>	
	Yearlings.....	\$1 20 to \$2 25	Principally tweed for uppers.
	Calf-skins .....	86 1 20	Calf for uppers.
	Horse hides.....	72 2 44	Principally for white leather.

#### SKINS OF NATIVE ANIMALS.

The use of the skins of the various kinds of native animals of Australia for making leather has given a great impetus to the leather trade of New South Wales. These animals belong to what is called the marsupial family, and with the exception of the opossum of North America are not found elsewhere. About 110 varieties have been described. The fact that these animals have become almost extinct in every other part of the world is cited as an evidence that they are the oldest mammals known. Fossil remains show that their predecessors in ages past grew to enormous size, rivaling almost that of the rhinoceros.

The kangaroo is the best known of the Australian animals. The larger varieties of these are disappearing on account of being hunted down with dogs and guns. Some of these animals killed in Australia were found to measure 5½ feet from the tip of the nose to the root of the tail, the latter measuring 3½ feet in addition, thus making the animal 9 feet in length. The head of the kangaroo is peculiar in shape, being considerably elongated; the upper lip is cleft, and the muffle nearly naked. The fore limbs are very small in proportion to the hind ones. The hands are naked beneath, and have five fingers, each armed with a curved claw of great strength. The hind legs are very large and powerful. The hair is long and soft, and of a gray hueish color above, and paler underneath. The toes and end of tail are black. These animals are vegetable feeders, and browse like ruminants, and occasionally chew the cud. When attacked by dogs, they not infrequently tear them open with their hind feet. Sometimes they have been known to clasp them in their forearms and drown them in the nearest stream, and they have been known to get rid of their human assailants in the same way. The skin from these animals makes very strong, smooth, and elastic leather. It bears some resemblance to kid, but is stronger and far more durable.

During the year 1884 New South Wales imported from Victoria, Queensland, and Tasmania 234 packages of kangaroo-skins, valued at \$10,140. The exports of kangaroo skins from New South Wales during the same period were 5,243 packages, valued at \$213,040. Of these, Victoria received 4,029 packages, Great Britain 1,060, and the United States 116 packages.

Next to the kangaroo, the skins of the wallaby and paddymelons are most in demand, the wallaby and paddymelon being a smaller species of the kangaroo; then there are a number of different kinds of opossum-skins used. In fact, the skins of nearly all the native animals are being used for leather, such as the kaola, or native bear, the bandicoot (native pig), the dingo (native dog), and the platypus.

#### THE PLATYPUS.

The platypus is one of the most extraordinary mammals in the world, and although its skin has long been a highly prized article of commerce, scientists have for the last fifty years been trying to settle the question whether it is born alive or hatched from an egg. A cablegram was sent recently to London by Professor Liversidge, of the University of Sydney, to the effect that Mr. W. H. Caldwell, who holds the Balfour traveling fellowship of Cambridge, had at last settled this question. Mr. Caldwell was especially commissioned by the British Association for this purpose, and the results of his investigation have created no little commotion in scientific circles both in Europe and Australia. Many bushmen have positively declared that the platypus is oviparous, but no platypus egg had ever been found by any one previous to Mr. Caldwell's discovery. Mr. Gerard Krefft used at intervals to offer £50 for an egg. Although numbers of platypus have been caught during the pairing season and dissected, no trace of eggs had been found, and scientists accepted the theory that these curious creatures were viviparous. Hence the sensation created by the cablegram above referred to. The apparatus and instruments which Mr. Caldwell brought to Australia to aid him in his investigation cost over \$5,000. This amount, together with other expenses connected with his visit here, is borne by the Association.

The body of the platypus resembles that of a mole, or small otter, and is covered with a close, short, grayish-brown fur. After a few stiff hairs are removed the fur is very soft and will stand very rough wear. It is made into caps, tippets, slippers, and rugs. Its tail is broad and flattened. The jaws are produced to form a beak like a duck's. The margins of the jaws are sheathed with horn, and are supplied with transverse horny plates, two in each jaw, but there are no true teeth. The toes are united by a membrane or a web, so that the animal is enabled to swim with great ease. It inhabits streams and ponds. Its food consists principally if not wholly of insects. It makes extensive burrows in the banks of rivers and creeks. Mr. Caldwell spent many months in Australia studying the habits of this curious creature. His studies have been rewarded with the discovery that it lays eggs, from which the young are hatched. The young are born quite blind and nearly naked. The method by which they obtain milk from the mother is still obscure, as there are no nipples, but simply a flat surface; nor is there any marsupial pouch. The beak of the young animal is different from what it is in the adult condition.

The platypus is extremely timid and is very difficult to shoot or catch. It swims with its head partly above the water, but disappears under the surface upon hearing the slightest noise or on catching a glimpse of a moving object, even at a great distance.

#### ROOTS AND SHOES.

The factory system is largely carried on in New South Wales in the manufacture of boots and shoes. Machinery is employed to a greater or less extent in all the factories in the colonies. Elastic sides, bal-morals, and ordinary walking shoes are the prevailing styles of imported goods. A decided preference is expressed for narrow and pointed toes. It is said that the American shoes are too wide and broad and look larger on the feet than other imported goods. The principal difficulty in the way of the introduction of American boots and shoes into this market is the strong prejudice in favor of the goods of English make. The people are accustomed to purchasing their goods and wares from Britain, with which country they have a direct exchange, and some time will elapse before the present system can be altered.

The following are some of the largest boot and shoe importers in Sydney: Enoch Taylor & Co., 22 York street; McMurtin, Killerman & Co., 92 Pitt street; I. McEvoy, 574 George street; Thomas Williams & Co., 412 George street; Evans & Co., 8 Barrack street; John Hunter, 452 and 454 York street; Callagan & Son, 395 George street, Sydney. The first-named firm has an extensive establishment in Melbourne, Victoria. McMurtin, Killerman & Co. make a specialty of fine work, and it is said all their goods are guaranteed. They are also large dealers in leather. During the year 1884 there were 39,370 packages of boots and shoes imported into New South Wales, valued at \$2,513,000. All these imports, with the exception of a few small packages from France, Germany, and the United States, came from Great Britain.

The export of boots and shoes produced in the colony does not appear to have increased within the last ten years, and the trade is confined to the other colonies and the South Pacific islands. The following table shows the number of packages and the value of boots and shoes of colonial produce exported from New South Wales for each year since 1875:

Year.	Number of packages.	Value.
1875.....	1, 665	\$238, 105
1876.....	1, 592	241, 280
1877.....	1, 959	297, 020
1878.....	2, 083	291, 290
1879.....	1, 875	233, 815
1880.....	2, 106	238, 795
1881.....	2, 205	240, 485
1882.....	2, 192	225, 750
1883.....	2, 383	242, 890
1884.....	2, 270	263, 050

Although there has been little increase in the quantity and value of the export of colonial boots and shoes since 1875, the home consumption of these articles is considerably greater than heretofore.

The Australians consume, I think, a greater number of boots and shoes in proportion to population than the people of any other country in the world. Indeed, anything like a correct statement of the actual number of boots and shoes purchased by the average Australian during the year would scarcely be credited in the United States.

G. W. GRIFFIN,  
*Consul.*

UNITED STATES CONSULATE,  
*Sydney, N. S. W., August 13, 1885.*

## **SOUTH AUSTRALIA.**

### **REPORT OF CONSULAR AGENT SMITH.**

Leather from all countries has fallen off largely. Colonial tanners are producing leather—sole, kip, calfskin, satin, split, kangaroo, and wallaby, at a lower price than can be imported, although in some instances not equal in quality, yet it answers all purposes required.

Hides are procured from the colonial butchers, sold by weight, according to quality.

Kangaroo skins are procurable, selling (dried in the sun), large size, up to \$15 per dozen; smaller size down to \$5 per dozen.

Wattle bark, in use here, is mostly grown in the colony, is of the best quality, realizing the highest price in the English market, and contains more tanning matter than any other, supposed to arise from the dryness of the climate.

From America we receive satin and split, the demand decreasing in consequence of the same being manufactured here; also sole leather, a quantity of which goes to England. Latterly a good demand has set in for dried kangaroo skins in the hair. Manufactured and curried leather is nearly all consumed in the colony, with the exception of a little sent to the adjacent colonies.

The only prospect of American leather selling here would be split and satin; but, as before remarked, these leathers can with American machinery be produced here at a cheaper rate.

The style of American boots is not approved here; to importers generally a loss. Boot factories, of which there are at present ten in number, employ from 50 to 150 hands each.

There is every prospect that the ministry of the day will increase the protective duty on this article from 10 per cent. to 20 per cent.

All plain leather boots, or nearly so, are made in the colony.

Ladies' and children's satin and light kid are imported from Germany and England.

J. W. SMITH,  
*Consular Agent.*

UNITED STATES CONSULAR AGENCY,  
*Port Adelaide, July 17, 1885.*

## **NEW ZEALAND.**

### **REPORT OF VICE-CONSUL GAMBLE.**

#### **TARIFF.**

Hides, free; furs, 15 per cent.; bark, free; calf and other leathers, except sole, morocco, roan, japanned, and enameled, 2 cents a pound; sole leather, 1 per cent. (other leathers are free); boot-linings, lasts, and wooden pegs, free; heel and toe plates, 15 per cent.

## BOOTS AND SHOES.

	s. d.
Men's, No. 6 and upwards.....per dozen pairs..	12 0
Youths', Nos. 1 to 5.....do.....	10 0
Boys', Nos. 10 to 13.....do.....	6 0
Women's, No. 3 and upwards.....do.....	8 0
Girls', Nos. 10 to 2.....do.....	6 0
Girls', Nos. 7 to 9.....do.....	5 0
Children's, Nos. 0 to 6 and slippers.....do.....	2 0
Women's lasting and stuff boots, without military heels.....do.....	5 0
Goloshes of all kinds.....do.....	2 6
Slippers, without military heels, other than children's.....do.....	3 0

## LEATHER.

The manufacture of leather is one of the many growing industries of this progressive colony. There are at present 17 tanneries, located as follows: At Auckland, 6; Wellington, 1; Canterbury, 7; and Dunedin, 3. All of them have a steadily increasing trade, the demand being greater than their output. Colonial-made calf-skin and sole leather compare favorably with the imported. The boot and shoe manufacturers use the calf for all second-class boots, and the sole leather exclusively. Saddlers and harness-makers, some of whom turn out work that would be creditable in any country, use colonial-made black and brown harness leather, white and brown basils, brown, black, and split kip, sole leather, white and green hides, and hog-skins. They import English hog-skins for best work.

The largest proportion of hides and skins are obtained in the colony. During 1883 only 2,320 hides, valued at \$12,170, were imported. But 3,768 fancy skins, furs, and pelts, valued at \$18,840, were also obtained from other countries. During 1884, 1,560 hides, valued at \$7,765, and 3,553 furs, pelts, &c., valued at \$10,595, were imported. Most of the hides were from New South Wales and Victoria, while the fine skins, furs, and pelts came from the United Kingdom.

## TANNING MATERIALS.

Most of the bark used for tanning is of local production. In 1883, 4,238½ tons, costing an average price of about \$50 per ton, were imported, and in 1884, 4,129 tons.

In order to procure local bark great attention is given to the cultivation of the wattle tree, which will grow in almost any soil, and the bark of which, when stripped during the last four months of the year, possesses the maximum strength of tan. It grows very rapidly, and the profit of its cultivation may be realized from the following reasonable estimate of receipts, derivable from a plantation of, say, 100 acres, during eight years: Each acre (wattles 10 feet apart) carries over 400 trees; at end of fifth year each tree would yield, say, 56 pounds of matured bark; stripping every third tree, 333 tons would be obtained, which, at \$45 per ton, would give for the first stripping \$14,985; sixth year, bark increased 14 pounds, 400 tons, at \$45, \$18,000; seventh year, bark increased 14 pounds, 480 tons, at \$45, \$21,600. Yield of bark during eight years, 1,213 tons.

In 1882 this bark brought only \$20 per ton. It is now valued at from \$40 to \$50. So important is the production of colonial bark that in 1882 Messrs. Michaelis, Hallenstein & Farquhar, tanners and leather merchants of Dunedin, offered the following bonuses as an inducement for the planting of wattle trees, the offer to remain open to all New Zealand for a period of six years: For the first 100 tons of wattle bark delivered at their works, *in addition to the full market rates*, a bonus of \$750; for the second 100 tons, \$500; and for the third, \$250.

A good deal of saffron is used in tanning, and by saddlers and boot-makers for staining. Most of it is imported from England, where it costs from \$10 to \$12 per pound. It is admitted free of duty.

#### MANUFACTURE OF LEATHER.

It is impossible to ascertain accurately the quantity of leather manufactured in the colony, as the manufacturers decline to impart any information to the outer world. They have succeeded in producing calf and sole leather that is preferred to the imported for all ordinary work in the boot and shoe trade, and do not wish to encourage or allow, and if possible to prevent, the importation of anything except perhaps a few varieties of fine goods which they have not as yet been able to produce. Nearly the entire output is consumed in the colony.

The kinds of leather most imported are East India kip, French and German calf, German kid, patent calf, seal, and goat skin, lamb skin, American tweed, levant, split, patent horse, and buff.

The following tables show the importations from all sources during the past three years:

Whence imported.	1882.		1883.		1884.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	<i>Cwts.</i>		<i>Cwts.</i>		<i>Cwts.</i>	
United Kingdom .....	2,475	\$182,016 25	2,234	\$168,773 75	3,531	\$359,295 00
New South Wales .....	612	38,662 95	321	25,129 20	193	12,955 00
Victoria .....	1,886	141,249 50	825	65,730 40	824	67,400 00
Tasmania .....	8	233 60	2	131 50	14	1,075 00
Queensland .....	4	111 95	.....	.....	7	378 00
United States .....	620	38,575 25	435	27,335 30	347	22,505 00
Totals .....	5,600	400,849 50	3,817	287,100 15	4,916	463,608 00

The building of coaches, &c., is a growing trade in the colony. In this business American japanned and enameled leathers are extensively used. The enameled is used for light buggy tops, but is not heavy enough for coaches, English manufacture being imported for them. The japanned is used for dashes. Coach-builders' rubber cloth and "American cloth" are duty free, as are also saddlers' mounts for harness, surcingles, brace, girth, roller-web, and collar check.

#### AMERICAN LEATHER.

An Auckland firm of carriage builders do probably the largest business of any establishment in New Zealand. This firm, Messrs. Cousins & Atkins, turn out not only coaches, buggies, carts, &c., of every variety, but have built street-railway cars quite equal in strength, lightness, and finish to those imported. I am informed by them that they find the American leather which they use better, as a rule, than the English, but that, owing to excessive freight, it costs them more. They complain, too, that American manufacturers sometimes give them old instead of fresh goods, which injures their trade greatly. Owing to the peculiarities of New Zealand climate, light carriage tops, even when the leather is new and of best quality when they are made, rot in a very few years.

Among those most likely to import and extend the use of American leathers I would mention the following:

Ireland Bros., Auckland, tanners; Garrett Bros., Auckland, tanners; Coombes & Son, Dunedin, tanners; Cousins & Atkins, Auckland, coach-



builders; Sinclair & Morton, Dunedin, coach-builders; James Wiseman, Auckland, saddlers; J. E. Evans, Wellington, saddlers; Northern Boot and Shoe Company, Auckland, boot and shoe manufacturers; C. C. Fleming, Auckland, boot and shoe manufacturer; A. R. & F. Goodacre, Auckland, boot and shoe manufacturers.

#### BOOT AND SHOE MANUFACTURE.

This industry is also steadily advancing throughout New Zealand, more especially in Auckland. The local markets are almost entirely supplied from factories. In Auckland there are nine factories employing from 20 to 120 hands each, machine work being done both by treadle and motive power. The Northern Boot Manufacturing Company of Auckland is one of the most extensive in the colony, employing at present 116 hands, and turning out an average of 1,000 pairs of boots per week. It uses sole pressers, rollers, sewing-machines, fair-stitchers, molding, skiving, punching, sole sewing, splitting, and eyeletting machines, all driven by a gas-engine of six-horse power. Most of these machines are made by Blake & Goodyear. Although at present machinery is used as far as the demand for factory-made goods will warrant. I think it will be to the advantage of machine manufacturers in the United States to keep the colonial trade advised of new and useful inventions, with prices and full particulars.

#### STYLES.

The output of boots and shoes from the Auckland factories averages from 4,000 to 5,000 pairs per week. A market is found in every part of the colony, but the largest proportion of the wholesale trade is with the South Island, especially for fine goods, which are now made here equal almost to the best imported, and far superior to anything turned out there. The demand for this class of goods, both men's and women's, including fancy styles in kid, is rapidly increasing. In the Auckland district pegged boots are generally worn, probably owing to the fact that nearly all the foot-paths are made of scoria. In the south brass rivets are used instead of pegs.

The classes and styles of New Zealand manufacture are: Men's and youths' East India kip, French and German calf, colonial calf, colonial kip, yearling, and split balmorals with elastic sides, men's and youths' colonial kip, lace, and tights, men's and youths' kip and split bluchers, women's, maids', and girls' tweed, levant, split, calf, and yearling balmorals with elastic sides, men's and women's split, levant, horse patent, and tweed slippers.

The average sizes are larger, the boots and shoes heavier, and less shapely than those of American manufacture. I do not think that a market could be found for the latter in New Zealand, except perhaps ladies' and children's wear to a limited extent.

A very creditable collection of boots and shoes, made by the Northern Boot Manufacturing Company, is displayed at the New Zealand Industrial Exhibition recently opened at Wellington. Several classes of boots are shown, some with uppers of colonial leather and some of English, placed side by side, so as to afford a comparative inspection of the two materials. The collection contains thirty-three varieties, including all the regular lines and a few novelties. Among the latter are satiu ball boots, glove and glacé kids, gentlemen's glove-kid tie shoes, jockey boots, Alpine boots, and men's cloth shooting boots, all of New Zealand material throughout, the cloth being from the Kaiapoi woolen mills.

Boots and shoes imported from the United Kingdom are generally



packed in canvas-covered trunks, each pair in card-board box with size marked thereon.

## IMPORTED SHOES.

Owing to the energy of colonial manufacturers, and the really good quality of their output, importations are materially decreasing. New South Wales and Victoria, until recently, found New Zealand an important market; now they send nothing. Nearly all the imported goods come from the United Kingdom. The following tables give the statistics for three years past:

Whence imported.	1882.		1883.		1884.	
	Quantities.	Value.	Quantities.	Value.	Quantities.	Value.
	<i>Dozen pairs.</i>		<i>Dozen pairs.</i>		<i>Dozen pairs.</i>	
United Kingdom .....	46,098	\$686,796 62	47,280	\$720,485 50	42,123	\$682,925 00
New South Wales .....	1,598	22,685 00	1,002	14,975 25	410	6,855 00
Victoria .....	12,286	226,820 25	4,915	80,710 50	817	8,905 00
Tasmania .....					39	1,190 00
China .....	100	1,048 35	137	1,352 95	78	865 00
Germany .....	22	111 95	20	657 00	10	200 00
United States .....	347	17,061 10	37	1,498 95	195	4,810 00
Totals .....	61,451	955,101 27	53,391	819,680 15	43,172	700 750 00

In Dunedin fifteen plants of shoe machinery—some of it the most improved known to the trade—are now being used in the production of boots and shoes. The number of hands engaged in the various branches of the trade is estimated at between four and five hundred. The work is of a class better suited in weight, shape, and fitting to the colonial wearer than are imported goods. Very few fine boots are made. In Wellington machinery is used in the factories to almost as great an extent and variety as in Dunedin. The principal trade is in men's and women's strong boots, most of the leather used being made in the colony. Fine boots and shoes, both for men and women, are procured from Auckland or imported to some extent from Germany and Austria. The universal verdict throughout the south is that it pays the manufacturers better to devote their attention to strong goods and use as much colonial-made leather as possible.

In submitting the foregoing report I would remark that I believe American leather manufacturers and manufacturers of machinery used in the coach building, harness making, and the boot and shoe trades, will find it to their advantage to keep the colony well advised in regard to all improvements in their respective branches, but in offering their goods in the market they can only accomplish satisfactory results by taking pains to adapt them to the peculiar wants of the colonial people, keeping well in mind the fact that every article sent out, different in any respect from that expected in accordance with representations made, tends to strengthen the idea, more or less entertained by English people, that American manufacturers having such enormous home markets to take the best of everything they, consequently, send abroad only surplus or inferior stock.

Permanent agencies in the colonies where samples can be seen, orders given, and positive assurance secured that goods will be sent properly packed, of a quality, at the price, and at the time agreed upon, will soon open up remunerative markets.

THOS. T. GAMBLE,  
Vice-Consul.

UNITED STATES CONSULATE,  
Auckland, August 8, 1885.

TANNIC EXTRACTS.  
ENGLAND.

REPORT OF CONSUL-GENERAL WALLER.

TANNIC EXTRACTS.

The trade in tanning materials, and particularly in tannic extracts, although of considerable commercial importance in Great Britain, is almost exclusively transacted by three or four business houses in London.

The trade statistics of the English Government usually furnish accurate and easily obtainable information of the imports and exports of every article of merchandise or manufacture, but as tanning materials are not dutiable, they are not in the customs records classified specifically, but entered only under the general heading of "dye stuffs and substances used in tanning."

Tanning extracts are listed simply as extracts without mention of the particular name, value, quality, or quantity, and tanning barks of all kinds without discrimination are entered in bulk.

In the absence of detailed official statistics, I am compelled to submit in the table below estimates of the trade in tannic extracts, &c., in Great Britain during the years 1883 and 1884, based upon interviews had with those who control the trade. This information, however, is in my opinion altogether reliable.

Name of extract.	Imports.		Factor's selling prices.
	1883.	1884.	
	Tons.	Tons.	Per ton.
Oak .....	2,000	3,550	\$85 00
Chestnut .....	2,475	1,750	67 50
Hemlock .....	2,000	1,400	82 50
Larch .....	100	90	80 00
Myrobolans .....	300	275	87 50
Quebracho .....	50	40	80 00
Valonia .....	50	40	115 00
Sumac .....	80	70	100 00
Divi-divi .....	20	15	120 00
Total .....	7,075	7,230	.....

PLACES OF PRODUCTION.

Oak bark and oak wood extracts are mostly obtained from Italy, France, and Slavonia; chestnut extracts from France, Austria, Italy, and the United States; hemlock extracts from British Possessions in North America, and a very small percentage from the United States; sumac extracts from Italy, Turkey, Spain, and Sicily. They are used almost exclusively by silk-dyers, in the form of a powder. Myrobalan extract is obtained from India, and is used with oak bark. Valonia acid is obtained in abundance in Turkey in Asia, and is used in combination with oak bark tannic.

The use of oak bark and oak wood extracts is increasing, and the use of hemlock extracts correspondingly decreasing. This arises from the growing prejudice of the trade here against leather of a reddish tint.

## WHERE MANUFACTURED.

Only a small percentage of the extracts used, sold in and exported from Great Britain, are made here. This is mostly done in the countries where the woods, barks, shrubs, &c., are found from which the extracts are produced, and where, obviously, it can be done more cheaply than here.

## COST OF MANUFACTURE.

The factor's selling-price of these extracts is given in the foregoing table. The cost of these is said by the trade to be from 15 to 20 per cent. less than the selling price. The importation from the United States of any of these woods or extracts is surprisingly small. The prevalent impression is that they can be procured more cheaply elsewhere. This misunderstanding, at least to some of them, ought to be overcome by American enterprise.

THOMAS M. WALLER,  
*Consul-General.*

UNITED STATES CONSULATE-GENERAL,  
*London, August 10, 1885.*

## LEEDS.

## REPORT OF CONSUL WIGFALL.

The value of hemlock extract for sale in this district is from £13 to £17 a ton, and we should estimate the total consumption of hemlock in the United Kingdom at about 3,000 tons a year. (George Anguss & Co., Liverpool.)

The leather manufacture of this district is more particularly engaged with a class of products for the treatment of which tannic extracts are not so well adapted as they may be to some others. Sole leather, for example, forms but a small proportion of the total outturn of the Leeds tanneries. The bulk of the production consists of what is termed dressing leather, viz, kips, sheep-skins, &c., and for their preparation other forms of material are preferred to extracts. Accordingly it is found that the manufacture of tannic extracts in the territory tributary to Leeds is very moderate in amount, and as regards an inquiry like the present, hardly worth considering. I know of but one firm at Leeds which manufactures tannic extracts. In 1883 this firm produced 180 tons of myrobalan, and 227 tons in 1884; the value of the product was \$14,015.52 in 1883, and \$17,675.13 in 1884. The cost of manufacture I have been unable to learn, but 10 per cent. on the selling price would possibly be a fair approximation. The needs of English tanners are mostly supplied by importations mainly from France, Hungary, and Slavonia, the United States, and Canada. The manufacture was formerly carried on in Italy; but there, of late, it has been almost abandoned. It is estimated that 2,500 tons of tannic extracts of all kinds were consumed in Leeds and the neighborhood in 1883, and 1,500 tons in 1884. The remarkable decrease shown by these figures, and which I understand has been fully sustained since the last date mentioned, is accounted for by the market fluctuations in value of the raw material. The rise in price of the crude article commonly employed in this place for tanning, as gambier, some two or three years since led to a largely augmented consumption of tannic extracts, but a subsequent decline in cost was followed by a re-establishment of the former material and a consequently diminished taking of the extract. The consumption of extracts in 1885 will probably not exceed 700 tons.

F. N. WIGFALL,  
*Consul.*

UNITED STATES CONSULATE,  
*Leeds, July 25, 1885.*

Mr. Ed. Mucklow, of the Elton Field Works, Bury, writes, July 28, 1885:

I have not been able to obtain anything like complete information as to the consumption of tanning substances in Great Britain. There do not appear to be any complete returns either in London or Liverpool. The annexed is all I have been able to obtain.

Imports of tanning materials into Liverpool.

Materials.	1883.	1884.
Myrobalans ..... tons..	9,500	7,100
Divi-divi.....	7,104	3,412
Valonia.....	9,016	7,390
Gambier.....	3,990	4,700
Sumac..... bags..	73,031	36,893
Do..... bales..	8,183	5,715

Government returns of imports and exports.

Articles.	Imports.		Exports.	
	1883.	1884.	1883.	1884.
Bark (for tanning and dyeing) ..... tons..	18,267	21,540		
Valonia..... do..	30,896	34,450		
Gambier and cutch..... do..	26,803	32,215	11,385	10,972

The values are so variable that it is next to impossible to say what would be a fair average.

The following is a list of the principal tanning substances, with the countries from which they are obtained :

Myrobalans : India.

Divi-divi : Maracaibo and other parts of South America.

Valonia and galls : Turkey in Asia.

Gambier and cutch : East Indies.

Oak bark and larch bark : Great Britain.

Hemlock bark : Canada.

Mangrove bark and quebracho : America.

Chestnut : South of France.

Sumac : Istria, Turkey, Spain, and Sicily, that from Sicily being best in quality.

Consul C. B. Webster, Sheffield, writes under date July 23, 1885: Tannic extracts are not manufactured in this country, but are imported almost wholly from the United States, where the barks are more abundant. It is therefore hardly possible to ascertain here the cost of manufacture.

By the official returns the quantities and values of raw tanning material imported into Great Britain during the year 1883 were:

Material.	Quantity.	Value.
	<i>Tons.</i>	
Cutch and gambier.....	26,837	\$3,458,723 74
Sumac.....	14,876	1,047,747 71
Valonia.....	30,468	2,356,495 56
Myrobalans.....	498,874	1,220,917 25

Other materials, barks, &c., are imported that are not mentioned in the Government returns.

The following tannic extracts are given in Messrs. Boucher, Mortimore & Co.'s (London New Leather Market) circular of July 3, with their prices at that date:

	Per ton.
Standard tannin, Beaver brand.....	\$77 86
Strong tannin, Lion brand.....	92 46
Refined tannin, Crown brand.....	107 06
Decolorized tannin, Diamond brand.....	102 19
Oakwood extract.....	87 59
Hungarian extract, larch.....	77 86
Chestnut extract:	
20° Baume.....	51 09
25° Baume.....	63 26
30° Baume.....	72 99
32° Baume.....	75 42

Consul Lorin A. Lathrop, Bristol, writes under date July 28, 1885:

On account of the peculiar jealousy existing among the various tanners, it is difficult to obtain much information as to their processes. They nearly all have manipulative secrets which they fear to disclose. Tanning is done principally with valonia imported from Smyrna. Sumac from Sicily, in the form of powder, not extract, is somewhat used. There is some employment of hemlock extract. It is used to the extent of about 80 tons a year by the Bristol tanners, and is nearly all imported from Canada. Extract of oakwood is imported from Southern France to the extent of 150 tons per year and chestnut to the extent of 20 tons. These extracts are all used in making sole leather.

## FRANCE.

Consul F. F. Dufais (Havre) writes, September 9, 1885:

An article of great importance and comparative novelty for tanning hides is quebracho wood, which comes here by the cargo from Buenos Ayres, Empredado, and Paso de la Patria on the Parana River. This wood is ground up more or less fine, and thrown into vats filled with water in which the hides are receiving a bath of more or less strength and length. The hides are then taken out after being properly saturated and swelled (*gonflés*) and put into pits with alternate layers of ground oak bark. Hemlock is not used in this country. Three or four years ago this wood commanded as much as 150 francs for 1,000 kilograms, but owing to overimportations, encouraged by large profits to the importer, the price has now dwindled down to about 65 francs for 1,000 kilograms, with a stock here of about 6,000 tons, and altogether about 20,900 tons in Havre, Antwerp, and Hamburg.

There is a large miller here grinding this article who has laid in a stock of several thousand tons in the last year, and who also manufactures an extract of it, besides extracts of dye-woods, but no other tannic extracts.

### *Imports of sumac and fusel.*

From—	Into Havre.		Into France.	
	1883.	1884.	1883.	1884.
	<i>Kilograms.</i>	<i>Kilograms.</i>	<i>Kilograms.</i>	<i>Kilograms.</i>
Germany .....	14,347	.....	.....	.....
England .....	249,462	82,902	249,462	66,679
Italy .....	34,729	.....	5,378,368	4,763,917
United States .....	5,000	.....	.....	.....
Austria .....	.....	10,239	.....	.....
Turkey .....	.....	67,126	.....	.....
Switzerland .....	.....	.....	.....	85,033
Other countries .....	.....	.....	47,216	51,591
<b>Total .....</b>	<b>303,538</b>	<b>160,267</b>	<b>5,675,046</b>	<b>4,967,220</b>

NOTE.—These imports were in the form of bark, leaves, and twigs; 4,958 kilograms of ground bark were imported into Havre in 1884.

Consul Albert N. Hatheway (Nice) writes, September 16, 1885:

Neither hemlock nor chestnut is consumed. Sumac is employed in small quantities and only for the tanning of white hides. The tannic extract of oak bark is almost entirely used and preferred. This bark is wholly the growth of said district, and is pulverized in stone mills of the most primitive construction. About 12 pounds of this tannic product are required for each hide.

The facts and figures in this dispatch were kindly furnished me by M. Curte and M. Lyons, the principal of Nice, and from the official records of the district, to which I was courteously allowed access.

Statement showing the quantity and value of tannic extracts manufactured in, imported into, and consumed within, the consular district of Nice, France, during the years 1883 and 1884.

Quantity of tannic extracts manufactured and consumed (no appreciable im- portations, sumae and oak bark alone used).	1883.	1884.
Sumac..... kilos..	27, 686	8, 800
Oak bark..... do...	237, 605	217, 500
Total quantity .....do...	265, 291	226, 300
Quantity in pounds.....	594, 252	506, 912
Value in gold of the United States (at \$2.22 per 100 kilos) .....	\$5, 889 45	\$4, 594 00
Cost price of manufacture per 100 kilos in United States gold.....	29	29
Total cost of manufacture in United States gold.....	769 34	656 27
Total valu in United States gold.....	6, 658 79	5, 250 27

Consul George W. Roosevelt (Bordeaux) writes, September 21, 1885:

From information received from Thiviers, Bergerac, and Perigueux (department of the Dordogne), I find that very little tannic extract is used; that hemlock is entirely unknown, and that no manufactory of tannic extracts exists in that department. A stock company is being formed at the present moment at Perigueux for the purpose of manufacturing tannic extracts from chestnut and oak. At Libourne (department of the Gironde) no tannic extracts are employed; ground oak bark only is used, which is sold at 9 francs (\$1.73) per 100 kilograms.

M. P. A. Rey, at La Rochette (department of Savoie), manufactures tannic extracts from chestnut bark (containing 20° Baumé and 22 per cent. tanning substance), at 20 francs (\$3.86) per 100 kilograms.

Messrs. R. Beral & Cie, of Tulle (department of Correze), manufacture chestnut ex-tract at the following prices for 100 kilograms: 20°, 24 francs (\$4.63); 25°, 29 francs (\$5.59); 30°, 34 francs (\$6.56).

The best tannic extract of sumac comes from Sicily (via England), and is mostly employed by the white leather trade.

Imports of sumac extracts into Bordeaux.

From—	1883.	1884.
	Kilos.	Kilos.
Austria.....	11, 092	.....
England.....	5, 920	28, 723
Portugal.....	4, 615	7, 400
Spain.....	.....	2, 508
Total.....	21, 627	38, 716

Consul Frank H. Mason (Marseilles) writes, September 23, 1885 :

Tannin is neither manufactured nor used for tanning purposes in Southern France. All tanning here is done either with oak or hemlock bark, or with sumac imported from Italy (including Sicily) and Algeria. Sumac for tanning is imported in two forms: first, crude, which means the leaves in bales; and, second, ground, in which leaves, stems, bark, &c., are ground together. In 1884, 2,039,347 kilograms of crude sumac and 2,443,845 kilograms of ground—or a total of 4,483,182 kilograms—were im-ported at this port. I cannot discover that any extract of sumac is made or used in this district.

Tanning barks are imported from Algeria, Italy, Tunis, the East Indies, and Aus-tralia, the quantity received last year being 1, 369, 238 kilograms. It is mainly of the variety of oak known as the *chêne vert* or live oak.

Tannic extracts are made in a small quantity only in the island of Corsica from the bark and wood of the cork tree. When the cork trees become so old and exhausted as to be no longer valuable for cork-bearing purposes, they are generally devoted to this purpose; but the tannin produced by this source is small and is sent almost entirely to Northern France and Great Britain, which latter country uniformly outbids all others in competition for the tannin produced in Corsica and the region of Smyrna. In former years tannin from Smyrna was imported to some extent through the port of Marseilles, but laterly, for the reasons stated, it now goes almost wholly to Eng-land.

Cork of inferior quality for tanning purposes is also produced in Algeria, but by a recent accident there a large part of the product of this year was destroyed by fire.



GERMANY.

REPORT OF CONSUL-GENERAL RAINE.

BARK AND TAN.

I take the following figures from the "Deutsche Gerber Zeitung" as refer to the quantities imported into and exported from the German Zollverein during the years from 1872 to 1884:

Year.	Imports.	Exports.	Year.	Imports.	Exports.
	Kilos.	Kilos.		Kilos.	Kilos.
1872 .....	97, 776, 800	4, 972, 600	1880 .....	60, 185, 200	4, 330, 400
1873 .....	99, 104, 200	5, 474, 300	1881 .....	62, 511, 800	4, 638, 300
1874 .....	55, 469, 500	10, 770, 900	1882 .....	59, 263, 700	4, 598, 800
1875 .....	48, 700, 000	7, 650, 000	1883 .....	59, 812, 300	4, 109, 900
1876 .....	62, 559, 700	9, 025, 700	1884 .....	65, 679, 400	4, 881, 800
1877 .....	102, 868, 700	10, 045, 500			
1878 .....	67, 603, 300	1, 169, 100	Total .....	902, 519, 500	78, 016, 500
1879 .....	60, 984, 900	6, 349, 200			

Yearly average import .....	Kilos. 69, 424, 577
Yearly average export .....	6, 001, 269

Yearly excess of import ..... 63, 423, 308  
The value being given as \$3.45 per 100 kilograms.

The yearly expenditure for the yearly excess of imports is stated to be \$2,148,916.

Statement showing quantities and values of gall-nuts, catechu, divi-divi, sumac, &c.

[Weight in 100 kilograms, and value in marks.]

Year.	Gall-nuts and galls of Quercus ceris.			Catechu.			Divi-divi.		
	Imports.		Ex-ports.	Imports.		Ex-ports.	Imports.		Ex-ports.
	Weight.	Value per 100 kilos.	Total value.	Weight.	Value per 100 kilos.	Total value.	Weight.	Value per 100 kilos.	Total value.
	Kilos.		Kilos.	Kilos.		Kilos.	Kilos.		Kilos.
1880 .....	1, 618, 800	138	2, 234	44, 300	5, 210, 700	65 3, 667	1, 238, 200	1, 078, 500	28 302 43, 300
1881 .....	2, 368, 100	138	3, 268	29, 500	6, 438, 400	60 3, 823	968, 400	911, 200	25 228 30, 100
1882 .....	2, 749, 800	165	4, 262	53, 700	5, 571, 400	65 3, 621	1, 046, 700	844, 100	25 211 69, 600
1883 .....	3, 422, 400	125	4, 278	108, 200	6, 645, 200	60 3, 987	1, 179, 200	1, 192, 700	23 274 66, 100
4 years' imports .....	2, 539, 800		58, 900	5, 966, 500		1, 108, 100	1, 006, 600		52, 300
4 years' exports .....	58, 900			1, 108, 100			52, 300		
Excess of imports .....	2, 480, 900			4, 858, 400			954, 300		
Value of excess of im- ports (in marks) .....	3, 101, 125			2, 915, 040			219, 489		

Statement showing quantities and values of gall-nuts, &c.—Continued.

Year.	Sumac.				Tannic materials and tannic extracts.			
	Imports.			Ex-ports.	Imports.			Ex-ports.
	Weight.	Value per 100 kilos.	Total value.	Weight.	Weight.	Value per 100 kilos.	Total value.	Weight.
	<i>Kilos.</i>			<i>Kilos.</i>	<i>Kilos.</i>			<i>Kilos.</i>
1880.....	4,847,800	23	1,115	241,600	6,566,000	27	1,773	898,000
1881.....	5,455,800	23	1,255	303,600	5,485,600	27	1,481	592,700
1882.....	6,413,700	23	1,475	258,400	6,599,500	45	2,960	832,500
1883.....	5,107,100	28	1,430	306,900	8,667,300	45	3,900	708,600
4 years' imports.....	5,456,100			277,400	6,824,600			757,900
8 years' exports.....	277,400				757,900			
Excess of imports.....	5,178,700				6,066,700			
Value of excess of imports (in marks).....			1,450,036				2,729,835	

As to the quantities produced and consumed in Germany, and as to the cost of manufacture, no official or other reliable statistics are obtainable, and parties engaged in dealing in such articles who were asked for such information seem to dislike to unveil their business transactions for the supposed benefit of competitors.

In 1883 the supplies of tannic materials were derived from the following places and countries, as appears from publications of the Imperial Bureau of Statistics:

#### BARK AND TAN.

	In 100 kilos.
From Hamburg-Altona.....	19,071
From Russia.....	8,322
From Austria-Hungary.....	324,326
From France.....	158,628
From Belgium.....	63,946
From Netherlands.....	16,053
From other countries.....	7,777
Total.....	598,123

#### CATECHU.

From Hamburg-Altona.....	20,992
From Belgium.....	2,676
From Netherlands.....	16,661
From Great Britain ..	20,786
From British Indies.....	3,826
From other countries.....	1,513
Total.....	66,453

#### DIVI-DIVI.

From Bremen.....	141
From Hamburg-Altona.....	7,702
From France.....	541
From Belgium.....	519
From Netherlands.....	1,369
From Great Britain ..	1,248
From United States of America.....	210
From West Indian Archipelago.....	123
From other countries.....	14
Total.....	11,927

*Imports of tannic materials, 1883.*

[100 kilograms.]

From—	Bark and tan.	Catechu.	Divi-divi.	Sumac.	Other materials.
Hamburg-Altona.....	19,071	20,992	7,702	2,948	16,044
Russia.....	8,322				
Austria-Hungary.....	324,826			21,585	11,092
France.....	158,628		541	10,949	19,371
Belgium.....	63,946	2,675	519	1,342	9,822
Netherlands.....	16,053	16,661	1,389	932	7,573
Other countries.....	7,777	1,513	14	557	1,017
Great Britain.....		20,786	1,248	1,488	17,815
British India.....		3,826			
Bremen.....			181		1,337
United States.....			210		
West Indies.....			123		
Italy.....				11,284	889
Switzerland.....					1,733

## SUMAC.

In 100 kilos.

From Hamburg-Altona.....	2,948
From Austria-Hungary.....	21,585
From France.....	10,949
From Belgium.....	1,342
From Netherlands.....	932
From Great Britain.....	1,488
From Italy.....	11,284
From other countries.....	557
Total.....	51,085

*Tannic materials and tannic extracts not specially enumerated.*

From Bremen.....	1,337
From Hamburg-Altona.....	16,044
From Austria-Hungary.....	11,092
From Switzerland.....	1,733
From France.....	19,371
From Belgium.....	9,822
From Netherlands.....	7,573
From Great Britain.....	17,815
From Italy.....	889
From other countries.....	848
	86,524

*Imports of bark and tan in 1884.*

In 100 kilos.

Hamburg-Altona.....	25,151
Austria-Hungary.....	361,600
France.....	158,274
Belgium.....	76,552
Netherlands.....	18,221
Great Britain.....	6,032
Switzerland.....	3,491
Russia.....	6,488
Denmark.....	137
Other countries.....	848
Total.....	656,794

As already stated in former reports, Bremen and Hamburg Altona are not yet included in the German Zollverein, and are in the above tables treated as foreign countries. I therefore subjoin here the figures reported by the United States consuls at Bremen and Hamburg.

BREMEN.

Table showing the weight and value of certain articles imported into and exported from Bremen during the years 1883 and 1884.

IMPORTS.

Articles.	1883.		1884.		Countries.
	Weight.	Value.	Weight.	Value.	
	Kilos.	Marks.	Kilos.	Marks.	
Sumac .....	56,344	21,946	69,835	20,971	Italy.
Catechu .....	38,892	22,060	11,099	5,933	East Indies.
Gambier .....	178	101	373	230	Do.
Divi-divi .....	41,270	9,318	99	23	Colombia.
Oak bark .....	434,115	36,702	536,092	41,540	Prussia.
Total .....	570,799	90,127	617,498	68,697	

EXPORTS.

Sumac .....	17,728	23,367	69,072	20,721	Russia.
Catechu .....	13,967	8,963	27,576	16,521	Prussia.
Gambier .....	135	109	377	165	Do.
Divi-divi .....	44,595	9,664	82,128	13,566	Do.
Oak bark .....	152,900	14,655	112,769	8,405	Do.
Total .....	229,345	56,958	291,922	59,378	

The consul at Hamburg reports :

From the official statistical report for the year 1883 there was imported into the city of Hamburg tanning bark 69,328 kilos, value 930,360 marks; sumac, 12,973 kilos, value 364,000 marks.

In these statistics oak bark is not included, oak bark being almost entirely obtained from interior districts of the Empire and from Continental countries, and consumed in the manufactures of the interior. There are no other statistics for 1883 at my command.

For the year 1884 I have obtained from Messrs. Walther & Lührmann, large importers in this line of business, information that there were imported into Hamburg and consumed or exported Quebracho wood and extract, 6,500,000 pounds, nearly all of which was consumed or exported. Divi-divi, 2,100,000 pounds, of which was exported 1,930,000 pounds; remaining at the end of the year 170,000 pounds. Sumac, French and Italian imported 14,900 sadis, exported 14,550 sadis; remaining on hand at the end of year 350 sadis. Terra catechu, imported, 1,700,000 pounds; exported, 900,000 pounds; remaining at the end of year 800,000 pounds. Terra japonica, imported, 5,200,000 pounds; exported, 4,850,000 pounds; remaining at the end of year 350,000 pounds.

Average prices per 100 pounds :

	Marks.
Quebracho wood .....	6 50
Quebracho-wood extract .....	38 50
Divi-divi .....	12 00
Sumac .....	10 00 to 15 00
Terra catechu .....	18 00 to 34 00
Terra japonica .....	20 75

I am enabled through the courtesy of the manufacturers of leather at Bergedorf to report the following quantities and values of tanning barks and extracts consumed by them, respectively, per year :

Hopt & Blass consumed in bark, mostly oak, 300,000 pounds, valued at 15,000 marks; and of extract, chiefly quebracho, 100,000 pounds, valued at 20,000 marks. They use no sumac, and but little chestnut.

J. W. Schmidt & Co. consumed oak bark, only imported from the Netherlands and Hungary, 33,000 pounds; value, 1,630 marks.

E. Spel consumed about 33,000 pounds, valued at 1,630 marks, and 200,000 pounds of extracts, valued at 18,000 marks.

These tanneries require from 300,000 to 400,000 pounds of oak bark. They consume but a small quantity of extracts or other tannic properties.

The oak bark consumed at the tanneries in Bergedorf is imported from interior districts and countries by railways and the River Elbe, and therefore is not included in the annual statistical commercial report of Hamburg.

The annual commercial report for 1884 has not yet been published.

F. RAINE,  
*Consul-General.*

UNITED STATES CONSULATE-GENERAL,  
*Berlin, August 7, 1885.*

Mr. James T. Dubois, consul at Leipsic—a place generally known for its large European leather fairs—reports:

The question of tannic extracts is being widely discussed among the German tanners, and while most acknowledge the unquestioned practicability of the process, many are found who claim that the old system of tanning produced by far the more durable and perfect leather, and every effort is being made to increase the home supply of oak and fichten (pine) bark.

The following is a table of the most important tannic materials now in use in Germany, showing the percentage of tannin contained in each and the price per 100 kilos:

Tanning stuffs.	Tannin.	Price per 100 kilos.		More per cent. of tannin in foreign extracts than in oak bark.
		Per cent.	Marks.	
Oak .....	9	15		
Mimosa .....	24	40		15
Garonille .....	18	20		9
Valonia .....	30	30		21
Quebracho .....	15	17		6
Divi-divi .....	80	80		21

The general impression among those who use the extracts mentioned in the foregoing table is that the quebracho, garonille, and valonia extracts are the best substitutes for oak bark. Many tanners are of the opinion that equal quantities of oak bark and the above-mentioned extracts make the best tanning material, and produce as good leather as full oak-tanned, besides being from 10 to 20 per cent. cheaper.

The most important points to be observed in this tanning process are that the leather is given ample time for the tannic extracts to properly work, and that the extracts are of good quality and carefully mixed.

The extract mostly used in this district for the tanning of sole leather is chestnut, and it comes principally from Belgium. Red pine has recently come into moderate favor. It is received from the Bohemian and Hungarian forests. Sumac, which is used in preparing morocco, is imported from the East Indies, and what hemlock is used comes from the United States.

Chestnut seems to be the principal extract manufactured in Germany which is used in tanning sole leather. There are no extract factories in my district, and consequently a statement in reference to the cost of manufacture that could be relied upon is difficult to secure.

There was at first considerable opposition to the use of chestnut, but it is now looked upon as an excellent assistant in the tanning of leather. It contains, to be sure, a weak amount of tannic properties, but it is cheaper than the other extracts. There is, however, one strong complaint made against its use, and that is to the effect that it produces a hard leather, but this difficulty can be avoided by mixing it with the quebracho extract.

One of the great mistakes of those using foreign tannic extracts is in hurrying the

tannic process. A skin which is slowly and carefully tanned will have a better weight and more durability than leather produced by the quick process.

Oak bark has been imported into Germany for many years from the United States. It is usually packed after the Yahr method, being pressed into as small a volume as possible by a hydraulic press, and shipped in bales. It is estimated that the American bark contains about 20 per cent. of tannin; but careful analysis proves that this rating is too high. The following is the result of a recent analysis of American oak bark: 100 parts of air-dried substance gave 88.33 parts of dry substance and 8.57 parts of tannin. The German tanner claims that these analyses prove the American bark to be inferior to the German oak in tannic power.

The Kermes oak, which is found in vast quantities in Southern France and North Africa, yields a popular bark. The bark not only of the trunk and limbs is used, but also that of the roots, which is called *garonille*. This was formerly extensively employed by the tanners of Southern France, and it produced a good leather, having a somewhat reddish color. The bark is dark-brown, and in the powder it is lighter. A recent analysis of this bark produced the following results: 100 parts of air-dried substance gave 90 parts of dry substance and 8.69 parts of tannin.

The mimosa extract from Australia may be classed among the best foreign tannic extracts.

The cheapest tannic stuff brought from foreign lands to the German markets is divi-divi, which comes from Venezuela, but the leather produced is inferior to the oak or mimosa-tanned leather. The divi-divi extract is used a great deal to strengthen weak tannic liquids.

Valonia from the regions round about Smyrna has long been in use in German tanneries. It is usually mixed with oak extract. In chemical properties valonia is very different from oak bark, but it has nearly the same tannic strength.

The largest part of the oak and fichten (pine) tannin used in this part of Germany comes from Germany and Hungary. The large tanneries in Neumünster and Schleswig use algarobilla, mixed with oak, in tanning horse-hides, while those in Wickroth, Olenkirchen, Breslau, Schandau in Württemberg, and Brünn (Austria), employ chiefly oak bark, which comes largely from Hungary, and also from Holland, where it flourishes on the borders of the river Maas.

Many tanners use from one-third to one-half oak bark, mixed with other extracts, such as chestnut, quebracho, valonia, mimosa, while but very few use exclusively oak bark. The fichten bark is used in tanning middle quality of upper and sole leathers. 100 kilos of the best ground quebracho cost 16 to 18 marks. 100 kilos of ground Hungarian fichten costs in Middle Germany 11 marks, including duty. 100 kilos of fichten extract, 43 marks; 100 kilos of oak extract, 55 marks.

The following are among the most important tannic-extract producers in Germany and Hungary:

Hungarian Tannin Manufactory, in Lipto-Upraz, Hungary: specialty, oak fichten extracts; production, 1,400 barrels per annum, of which 6,200 barrels are imported into Germany.

Farbholz-Extract-Fabrik, in Ottensen, near Hamburg: specialty, quebracho extract and bark. Fahr Brothers, in Pirmasens. Carl Teuerhein, Stuttgart; specialty, quebracho extract and ground bark, chestnut extract, and coloring extracts. Oscar Hartmann, Stuttgart, large importer of valonia. Actien-Gesellschaft für Farbholz-fabrikate, Hamburg; specialty, quebracho, divi-divi, chestnut, sumac, myrabolan extracts.

Mr. George C. Tanner, United States consul at Chemnitz, writes:

Of all the tannic extracts sumac is only manufactured in this district, and that to such a limited extent as not to be worthy of notice.

The best substitute for sour liquors in raising hides has been agitated in Holland, where the supply of sour liquors is insufficient, and the attempt to use acids has been found unsuitable for heavy tannages. It was pointed out that sour liquors employed in the German way not only swelled the hides, but accomplished a preliminary coloring and tanning process, and that there was no effectual substitute.

For raising hides a white floury paste is the safest alternative, but with this there is no coloring and tanning. It is prepared by mixing wheat flour in the proportion of 36 to 45 parts, by weight, to 100 parts hide, or barley meal in tenfold proportions, into a thinnish paste with water of 100° Fahrenheit. Thereby it quickly enters into a state of fermentation, generating lactic acid. The paste should be prepared in a covered vessel, so as to avoid sudden change of temperature.

The fermenting paste is then emptied into a pit full of clear water, and well intermixed therein. The hides should be hung on rods, not laid in the liquor, and should be worked backwards and forwards until plumped to the required degree. Due attention must be given to the transmission of lactic acid into butyric and acetic acid fermentation (as these are more energetic and more nearly resembling mineral acid in their actions on hide substances).



The following is the result of a careful experiment by Lowenthal's method to ascertain the relative value of one kilo (2.2 pounds) of tannin in various foreign tan-stuffs :

Material.	Tannin in 100 parts of air-dried bark.	Tannin in 100 parts of bark dried at 100° C.	Price per 100 kilos.	Price per kilo-gram of pure tannin in mar-ket.
			Marks.	Marks.
Mimosa bark, Adelaide .....	23. 01	25. 15	33. 50	1. 46
Divi-divi, Curawa, prima.....	40. 74	42. 71	31. 50	0. 77
Valonia, Smyrna .....	29. 50	31. 37	40. 00	1. 36
Myrobalans, green.....	30. 96	35. 03	.....	.....
Myrobalans Madras, brown .....	27. 95	30. 64	24. 50	0. 83
Algarobilla, prima.....	34. 82	40. 86	53. 50	1. 54
Algarobilla, secunda.....	27. 09	32. 02	39. 50	1. 46
Paraguay.....	13. 72	.....	.....	.....

Mr. William O. Fox, consul at Brunswick, writes :

Sumac comes from European and Asiatic Turkey, and is employed in tanneries in Berlin and Mühlhansen, in Thuringia, for tanning sheep skins. Chestnut is used here to a small extent. The Actien-Gesellschaft für Lederfabrication, in Bustelmdede, has its own rasping mill for sawing chestnut wood and use large quantities. Chestnut extracts are also produced in Lyons and La Rochelle, in France, and are used in sole-leather tanneries on the Rhine. Hemlock bark is not used here at all.

Consul-General Jacob Mueller, Frankfort-on-the-Main, transmits, under date September 24, 1885, much the same tables given in the report of Consul-General Raine, and adds :

Partly to account for the non-extensive use of tanner's extracts, the fact may be stated that tanners generally adhere to the old-fashioned bark-tanning methods, and that they look upon the use of extract as an innovation injurious to the tanning industry and to the quality of the leather, ridiculing the attempts to substitute bark extracts for the bark itself as an application of homeopathic principles to the process of tanning.

Upon inquiry I find that the chief centers of manufacture of tanning extracts are Hungary and the cities of Havre, Paris, Basle, Hamburg, and Ottensen.

BIRCH OIL.

RUSSIA.

REPORT OF CONSUL-GENERAL SWANN.

The process of manufacturing this oil is not difficult, and is readily remembered by those who have seen the operation. The details, however, require technical consideration, as does the process need experience. The peasants, however, assert that the proper making of birch oil is a *hereditary secret*. Such general remarks as the foregoing apply in like manner to other manufactures in Russia, such as sheet-iron, the preparation of dyes and stains, the curing of caviar; also the processes observed in the making of papier-maché wares, Russian wooden wares that are lacquered, and a multitude of other "hereditary" industries, in which the needed technical knowledge and skill alone are wanting in the practice of foreign imitators. Austrian, German, French, Italian, British, and other firms have frequently sent specialists here to acquire

the needed knowledge and practice in these processes, with the result that such acquired manufactures are perfect in competition, whereas to the general imitator such manipulations are secret entirely, consequent on the absence of technical information and necessary detail.

JAMES V. R. SWANN,  
*Acting Consul-General.*

UNITED STATES CONSULATE-GENERAL,  
*St. Petersburg, July 16, 1885.*

Consul Rawicz, of Warsaw, writes :

I beg to state that the common birch tar is used for imparting to leather the odor peculiar to Russian leather. The surface of the leather is covered with a thin layer of the birch tar and rubbed with it, and as soon as the surface becomes dry it is once more rubbed and covered with the same tar. Leather so prepared has the so-called odor of "cuir de Russie," representing a combination of the birch-tar odor with that peculiar to leather, and this odor lasts very long, even for years, without becoming vapid. No other means are used by the local and Russian tanners, and of the existence of a special oil or extract of birch tar they have never heard. The birch tar is brought from Moscow, where it is manufactured.

Consular Agent Bomboldt, of Riga, writes :

There are no manufacturers of birch oil in this district. The article, as well as the leather impregnated with this oil, is manufactured in the interior of Russia, beyond Moscow.

Vice-Consul Donner, of Helsingfors, writes :

I have to inform you that birch oil is not manufactured in this country, and consequently not an article of export. It is not used here at all. I understand it is only manufactured in Russia.

From the conflicting and unsatisfactory nature of the replies submitted in answer to the Department's inquiry, it is evident that the technical knowledge at the disposal of this consulate (St. Petersburg) is limited.

## GERMANY.

### REPORT OF CONSUL-GENERAL RAINE.

From tanners, wholesale dealers in leather, druggists, and dealers in oils I learn that birch-tar oil is exclusively manufactured in Russia and Poland, and is not at all an article in demand here. The passion for so-called youfts (Russia leather) has greatly decreased in Germany, and it is asserted by parties whom I consulted on the subject that the German leather is now much superior to the Russian leathers. In other countries also, especially in Austria—for instance at Hamensburg—youft is said to be manufactured in a quality just as good as the Russian article.

Dr. Schaedler, an expert chemist, writes to me as follows :

Birch-tar oil (*essence de bouleau, Oleum Rusci, Oleum betulinum, Döggert, Dagget, Youft oil, &c.*) continues to be manufactured in Russia and Poland in a very primitive and crude manner.

There are two methods of obtaining birch-tar oil: 1. Two earthen pots are taken; one is filled with birch bark and covered with a perforated metal plate; the other pot is inverted upon it in such a manner that the mouths of both pots join, having the perforated plate between them. They are thus tightly plastered together. The empty pot is buried in the earth, so that the pot filled with birch bark stands

above the ground. This done, a fire is made around the latter pot-to cause the empyrenumatic oil to drip into the empty pot below by descending distillation. 2. According to another method birch-tar oil is obtained by dry distillation in closed iron vessels by a tube connected with a kettle buried in the earth.

In France much larger quantities of a superior quality are obtained by subjecting birch bark to dry distillation in closed iron cylinders, as used in the manufacture of wood-vinegar, having a horizontal position, and provided with a cooking apparatus. The oil obtained by this latter process amounts to about 60 to 70 per cent.

Birch-tar oil is quite a thick liquid, of brownish-black color which even when subjected to a very low temperature does not become perceptibly more viscid. It has a peculiarly strong empyrenumatic smell, and is used for tanning youfia or Russia leather in the following manner:

The swollen tanned hides are smeared on their flesh side with the oil, thoroughly dried in cool-air drying apartments, and then dressed in the usual manner.

By a repeated refining of the crude oil a white oil (*Oleum Rusci rectificatum*) is obtained, which is used in the artificial manufacture of rum and arrack, and also to impart to common leather the peculiar odor of Russia leather, and hence for purposes of adulteration.

Messrs. Zenckner, Lampe & Co., Berlin, a large wholesale firm, dealing in drugs and oils of all kinds, of whom I bought samples of birch-tar oil, write me that the obtaining of crude birch tar oil is practiced exclusively in Poland and Russia, where there are extensive forests consisting mainly of birch.

The statement of Dr. Schaedler, above given, agrees fully with an article which Dr. Wilhelm Gink, ordinary professor of chemistry, wrote on birch-tar oil. This article is published in Volume I, pages 524, 525, of the recent edition of Karmarsch & Heeren's Technical Dictionary, (Bohemia Hock Company, Prague). He states that the name of birch oil is given also to an etheric oil obtained by the distillation of young birch leaves with water—an oil entirely different from the birch-tar oil. It is of an aromatic smell, but not used for technical purposes.

From another source I learn that birch oil is obtained from the exterior bark of old birch trees already in a state of putrifaction.

Crude birch-tar oil is sold at about 15 cents per kilometer. Refined birch-tar oil is sold at about \$1.90 per kilometer. Both oils are of Russian origin.

F. RAINE,  
*Consul-General.*

UNITED STATES CONSULATE-GENERAL,  
*Berlin, July 10, 1885.*

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REPORT OF CONSUL-GENERAL MUELLER.

Birch-tar oil is obtained by distilling birch tar in the following manner: The tar obtained by dry distillation of the bark and roots, and also of the birch wood, is mixed with water in a specially constructed apparatus and subjected to simple distillation. In the first runnings are found mainly vegetable acid and other pyrogenous and colored products of distillation, and there remains a clear, colorless oil, which, when stored a length of time, attains the quality of dyeing brown.

The crude birch tar is obtained only from Poland and Russia, where there are dense forests of the birch tree. The treatment of the same is analogous to that of various pine species from which the common tar is obtained. The latter is also produced by dry distillation, either in pits or in tar furnaces built for the purpose. The pits are usually located on some slope, have an inverted conical shape, and are supplied at the bottom with a canal, through which the tar flows into the tar receptacle. The pits are filled with the necessary material (in this case with

birch bark, wood, &c.); this is set on fire, and the pit closed with a layer of earth, with vents or air-holes to supply a draft. The tar furnaces or ovens are built of clay in the forest. They consist of a hollow cylinder, which has an opening in the cupola overarchng this same cylinder; the lower end extends funnel shaped, and ends in a canal, which connects with the tar receptacle. Around this furnace, which is filled with the necessary material, is built a mantel of clay, at a distance of from 8 to 10 centimeters from the foot of the cylinder, but uniting at the top with the cupola. The space between cylinder and mantel serves for the fire, small openings in the mantel making direct communication with the open air, and therefore affords a draft. The heat about the cylinder is sustained until tar ceases to flow from the canal.

The odor which the empyreumatic oil imparts to Russia leather is to be attributed to the peculiar nature of the bark of the Russian birch tree, out of which this odoriferous oil is produced.

It is universally admitted that the birch oil is not produced in any part of Germany.

JACOB MUELLER,  
*Consul General.*

UNITED STATES CONSULATE GENERAL,  
*Frankfort-on-the-Main, August 3, 1885.*

Consul-General Raine procured two sample bottles of birch oil as prepared in Russia, and sent them to the Department. As the quantity was not sufficient to make a general distribution among such tanners as had applied for it, the oil was submitted to the chemist of the Department of Agriculture in order that its essential ingredients and properties might be determined. The following letter gives the result:

UNITED STATES DEPARTMENT OF AGRICULTURE,  
DIVISION OF CHEMISTRY,  
*Washington D. C., October 21, 1885.*

The two samples of birch oil which you sent to Commissioner Colman have been referred to me for examination. From the complex nature of such oils it is impossible to make either a complete or partial chemical analysis of them.

The following table shows the most commonly occurring chemical bodies found in the dry distillation of woods, and has been taken from various authorities:

PRODUCTS OF THE DRY DISTILLATION OF WOODS.

(a) Gas .....	{	Acetylene .....	$C_2H_2$	
		Ethylene, olefant gas .....	$C_2H_4$	
		Propylene .....	$C_3H_6$	
		Butylene .....	$C_4H_8$	
		(Benzol .....	$C_6H_6$	
		(Toluol .....	$C_7H_8$	
		Xylol .....	$C_8H_{10}$	
		Naphthaline .....	$C_{10}H_8$	
		Carbonic oxide .....	CO	
		Carbonic acid .....	$CO_2$	
		Hydrogen .....	$H_2$	
(b) Tar .....	{	Naphthaline .....	$C_{10}H_8$	
		Reten .....	$C_{10}H_{18}$	
		Paraffines .....	$C_{20}H_{42}$ to $C_{22}H_{46}$	
		Phenols { Phenol .....	$C_6H_5$ OH	
		{ Creasol .....	$C_7H_8$ O	
		{ Phlorol .....	$C_9H_{10}$ O	
		Guajacol { Oxyphenol .....	$C_8H_4$ (OH) $_2$	
		{ Creasote .....	$C_8H_{10}O_2$ } Combination of monomethyl, ethers, and acids of	
			$C_9H_{12}O_2$ } methyl homologes of the oxyphenols.	
		Resinous matter.		

	Acetic acid .....	$\text{CH}_3\text{COOH}$
	Propionic acid .....	$\text{C}_2\text{H}_5\text{COOH}$
	Butyric acid .....	$\text{C}_3\text{H}_7\text{COOH}$
	Valeric acid .....	$\text{C}_4\text{H}_9\text{COOH}$
	Caproic acid .....	$\text{C}_5\text{H}_{11}\text{COOH}$
	Acetone .....	$\text{C}_3\text{H}_6\text{O}$
(c) Tar water	Methyl acetate .....	$\text{CH}_3\text{C}_2\text{H}_5\text{O}_2$
	Methyl alcohol .....	$\text{CH}_3\text{OH}$
	Allyl alcohol .....	$\text{C}_3\text{H}_5\text{OH}$
	Methylamine .....	$\text{CH}_3\text{NH}_2$
	Hydrocoeruligon .....	$\text{C}_{15}\text{H}_{16}\text{O}_8$
	Phenoles, guajacol .....	Resinous matters
	Betulin, birch resin .....	$\text{C}_{40}\text{H}_{64}\text{O}_7$
(d) Charcoal	Carbon .....	85 per cent.
	Hygroscopic moisture ...	12 per cent.
	Ash .....	3 per cent.

In Russia and other northern countries the bark of the white birch is subjected to a kind of downward distillation in conical pits, 20 or 25 feet deep, covered over first with a roofing of straw, and then of turf and mold, having holes to regulate the admission of air, as in the charcoal meilers. By this process two products are obtained, namely, charcoal and tar, the latter amounting to 60 or 70 per cent. of the bark. It is a brown-black viscid fluid, remaining liquid even at a very low temperature.

This tar when distilled yields a brown strong-smelling acid oil, and on rectifying this oil, a liquid hydrocarbon having the composition of oil of turpentine passes over at  $100^\circ\text{C}$ ., mixed with an oxygenated oil; the proportion of the latter gradually increasing as the distillation advances. The oxygenated oil may be removed by potash-lye, and the hydrocarbon,  $\text{C}_{10}\text{H}_{16}$ , remains behind. Its smell is like that of oil of turpentine, but more agreeable, recalling that of birch bark. Betulin is probably formed from this hydrocarbon by oxidation. (Sobrero, J. Phar. (3) ii, 207.)

This birch-tar oil contains creasote, phenol, of a peculiar kind according to Louginine, and parafine. It is used in the making of Russian leather, to which it imparts its peculiar order. In the process of tanning, oak bark is not used, but the barks of various kinds of willows, fir, and birch bark also being employed. The hides after they are tanned and drained are impregnated with the birch oil, which is rubbed into the hides on the flesh side, and when thoroughly impregnated they are stretched until they become soft and supple. The hides are next rubbed on the hair side with a solution of alum, and then grained and dried.

The value of this oil in the manufacture of leather consists in its antiseptic properties and its peculiar odor, by which the attack of insects, &c., is repelled, the leather so prepared being used chiefly for the binding of books, &c.

Wood-tar creasote is not a definite substance, but a very variable mixture of several phenol-like bodies. Of these the chief are:

Guaicol,  $\text{C}_7\text{H}_8\text{O}_2$ , boiling at  $200^\circ\text{C}$ ., and creasol,  $\text{C}_8\text{H}_{10}\text{O}_2$ , boiling at  $217^\circ\text{C}$ . Smaller quantities of phlorol,  $\text{C}_8\text{H}_{10}\text{O}$ , methyl creasol,  $\text{C}_9\text{H}_{12}\text{O}_2$ , and other bodies are present.

Wood-tar creasote closely resembles the coal-tar acids. It is sparingly soluble in and slightly heavier than water, has a peculiar smoky taste and smell, and is a powerful antiseptic. It preserves animal matters without causing disintegration, as carbolic acid is liable to do, and is less powerfully caustic than the latter substance. It is miscible in all proportions with alcohol, ether, acetic acid, chloroform, carbon disulphide, and benzine. It is often adulterated with or wholly substituted by crude carbolic acid.

I have carefully tested both samples to see if they were adulterated with any coal-tar products, and find that they are free from such admixtures.

The sample marked "Birkentheeroel" consists of the lighter oils, i. e., the products of the dry distillation of the birch wood which first pass over and condense, while the sample marked "Birkenoel" contains the heavy oils that pass over towards the end of the operation.

To make a complete analysis of these oils would require the labor of several months and a large quantity of material, and even then the results obtained would hardly show the quantity of any particular constituent present. Under the circumstances of the small quantity sent and the short time at disposal in which to make such examination I have collected the above data, which I hope will answer your purpose.

EDGAR RICHARDS,  
Acting Chemist.





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*Revised*

UNITED STATES CONSULAR REPORTS.

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REPORTS

FROM THE

CONSULS OF THE UNITED STATES

ON THE

LEATHER AND SHOE INDUSTRIES

IN THEIR

SEVERAL DISTRICTS,

IN ANSWER TO

A CIRCULAR FROM THE DEPARTMENT OF STATE.

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